1938

**SCHEDULE OF ACTIVITIES**

*Indische Amerikapootche Expedition*

**Apr. 10**
Portion of American party leaves Macassar for Hollandia.

**Apr. 20**
Arrives Hollandia, builds living quarters, stores, etc. Reports to Java party by radio regarding needs.

**May 9**
Last of party leaves Macassar for Hollandia. Dyaks also go on this boat.

**May 19**
Equipment, portion of American party, Dyaks, two months' store of food arrives at Hollandia. Goods installed in store, Radio message sent to California, plane flies to New Guinea from United States.

**June 1**
Five reconnaissance flights of six hours each.

**June 10-26**
Whole party (Indian-American) to Idenburg base by plane plus three months reserve food, two of which is to be a reserve. (For a party of 4 whites and 60 natives the total weight to be moved would be about 6000 lbs. or 6 flights of 3 hours each.)

**June 26**
Advance party leaves for finding trail to Habbema.

**July**

- **Military base unit at Idenburg.**
- **Scientific party at Idenburg.**
- **Military advance party on the way to Habbema.**
- **Airplane (on 10th, 20th, 30th):** 3 flights of 5 hours each to deliver 20 days food to advance party (3000 lbs. for 1 white and 40 natives; rice and peas to be dropped without parachute). 1 flight of 3 hours to deliver food to Idenburg base.

**Aug.**

- **Military base unit at Idenburg.**
- **Military advance party on way to Habbema.**
- **Scientific party near Idenburg.**
- **Airplane (on 10th, 20th, 30th):** 3 flights with food for advance party as in July. One flight to deliver food to Idenburg base.

**Sept.**

- **Military base unit at Idenburg.**
- **Military advance party on way to Habbema.**
- **Scientific party near Idenburg returning there on 26th.**
- **Airplane (on 10th, 20th, 26th):** 3 flights with food for advance party as in Aug. One flight to Idenburg with food.

**Sept. 21-25**
Three flights of 5 hours each to Habbema with 3 months food (2 of these to be reserve) for advance party and scientific party.

**Sept. 29-30**
Two flights of 5 hours each from Idenburg to Habbema with scientific party.

**Oct.**

- **Military base unit at Idenburg.**
- **Scientific party at Habbema.**
- **Advance military party near Habbema finding trails and establishing other collecting camps.**
- **Airplane:** 1 flight of 5 hours with food to Idenburg; 1 flight of 5 hours with food to Habbema.
Nov. Military base party at Idenburg. Scientific party near Habbema at another camp. Advance military party at Habbema base, oversees transport of scientific party to another camp, explores neighborhood for another camp. Airplane - one flight of 5 hours to Habbema with food; one flight of 3 hours to Idenburg with food.

Dec. As November.

Jan. As November.

Feb. Military base party at Idenburg. Advance military party and scientific party return to Habbema, fly back to Idenburg and move to camp on Doorman Mt. Airplane - six flights of 5 hours to bring Habbema party to Idenburg. Two flights of 3 hours with food to Idenburg.

March Military base party at Idenburg. Scientific party at camp on Doorman Mt. Advance military party overseeing the establishment of other camps and delivering of food to scientific party. Airplane - two flights with food to Idenburg.

April As March.

May As March.

June A collecting camp in Marshes of Idenburg.

July Close expedition.

The above is a schedule which will have to be modified by practical difficulties and as a result of the reconnaissance flights.

The length of time and areas in which the scientific party plans to collect will be constant though the order of working camps will depend on circumstances.

The estimated number of flights was based on smaller inland party than it appears we will have. Probably the number of flights should be doubled.

The duties of trail finding, exploration of collecting areas, and overseeing of establishing scientific camps and their transport assigned to the advance military party was on the advice of General Bereuscht during the conference of March 24, 1938.
April 23, 1938. Hollandia

Our boat, the ss "Van Imhoff", arrived and anchored in the harbor of Hollandia at 8.00 in the evening. We were late in discharging the cargo because of a heavy rain and a confusion in checking the cases. It was not until after 2:00 that we were settled with our personal baggage in the hospital. The doctor, a Malay, was very helpful in arranging our accommodations and helping us get settled. There were 28 Papuan coolies which assisted us in clearing our baggage from the dock to the hospital about a ¼ mile up town (inland from beach). Four of our Makassar coolies slept on the dock to guard our cargo. The other eight slept at the hospital in a room adjoining ours. The personnel of the Indian American Expedition at Hollandia is:

L. J. Brass, Botanist

H. R. V. Mielke - Storeman, interpreter, etc.

H. G. Ramm, radio operator

W. B. Richardson, Mammalogist.

11 Makassar coolies, two of which are cooks helpers.

See list for same and their pay.

1 Malay cook from Soerabaia "Asiet" pay 40 Guilders start to a maximum of 60.00.

April 24, Hollandia.

The morning after a makeshift breakfast we began moving into what is to be our home for the next month or more. It is situated within 50 feet of the beach and 30 ft. from the little river that flows through the south edge of the village. Here we have a five room house built in a native fashion with cement floor, sago stem walls, and atap roof. Next
door to the west we have a godown in which we are storing our supplies. It also acts as a house for the coolies. Due to an error we received the wrong type of lumber for the ramp. This has necessitated placing an order with Mr. Ebeli who owns a saw mill beyond Sentani Lake (10 km. by prow to Pim; 10 km to foot path to Koeyali; 15 km. by prow to Ifar, Sentani Lake; 15 km. by footpath to Dojo Bare; total 45 km.).

The plans for the ramp are: 46 m x 6 m x 10 cm. (see sketch)

Size and number as follow:

- 3.36 M. 3/10 of total
- 4.00 M. 2/10 of total
- 3.00 M. 5/10 of total

Cost:

- f.35.00 per cubic meter
- 30.00 transportation to Hollandia
- f.65.00 Total

More information about our living quarters and the godown. They are rented for a month or more from Mr. Brinkman who is a German planter five hours above Pim. He is a long lanky bald headed man with a pleasant smile. It is a pity he does not speak English or we German. The "gesaght haben" (sp.?), the government representative in this country is in bed with the fever.

Our work today has been making the house livable and to bring stores to our hired godown.

April 25, 1938. Hollandia.

Today's work has been the selecting of the ramp site and approach for the aeroplane as well as the continuation of working about the kitchen and godown. The government resident, Mr. Hoogland, has given us permission to put our ramp, godowns, etc. where we like. There is only one suitable place near the town of Hollandia for the ramp about 60 feet south of the
pier. There are many difficulties to bringing a plane up at this spot. The depth at high tide was about four feet and in that the plane draws four feet of water there is little room for clearance. The shore is somewhat like this: (sketch)

(And another, larger sketch):

See following sheet

The above is the route that Brass and I took this afternoon in the government motor launch kindly lent by Mr. Hoogland. During our search for a suitable airplane base we traveled along the entire coast line of the northern portion of Humboldt and Hollandia Bays. There was no site which was as good or better than the one here in Hollandia. There was shallow coral reefs, high hills with abrupt — or swamps which spoiled each sheltered spot or probably base site.

Harold Ramm and I made a short survey of the region south of the pier for base ramp. This afternoon Ramm continued the survey. The outcome is that there is a possibility that the place may prove satisfactory. At best the airplane will be unable to come in only at high tide. The ramp will probably have to be made longer than the 130 feet that we had planned.
In addition the coral reef must be blasted an area 10 x 30 feet. It may prove necessary to dredge a portion of the area to get it down to the needed depth.

The captain of the government steamer, who has been stationed here for two months told us that the only protected spot for an airplane anchorage was in the north easterly baylet of Humboldt Bay. (See map on previous page). He advised this an an anchorage spot for the plane. Three times since he has been here his government boat has been washed up near the coral reefs by the strong north east winds.

One — and 27 Papuan coolies reported this morning for work. They spent the day cutting jungle wood for the godowns, etc. I would judge that we had nearly enough lumber for one of the godowns. It amazed me to see the quantity they had piled on the beach. There is a bit of a dispute as to the wage they should receive for their work. The government (gesagheber) said thirty cents per day, the coolies say not enough "no workie". The matter will be decided tomorrow. We sent them off happy with a portion of tobacco.

The Makassar coolies spent the day doing odd jobs about the house and godown such as sorting cargo, washing clothes, building tables, and many other odd jobs.

Things are beginning to run quite smooth about the house. The meals are excellent, well prepared and nourishing. All of the coolies chores are done quietly and smoothly; and they show a fair amount of initiative. They seem happy for tonight they are singing songs to the accompaniment of a guitar. Some of the songs are English or American - the words of which sound queer on coming from their lips.
April 26, 1938. Hollandia.

This morning there was a light rain which delayed our work. Spent that time in the godown straightening up the stores. After the rain Ramm, Brass and I made a rather thorough survey of the ramp site. Stakes were put in outlining the best channel for the approach.

(Sketch)

Measurements which I made this afternoon of the depths are as follows:

Datum Post 3'3" (within 4" of high tide) Time 4.35 PM
End of ramp 4'3"
15 yd from end of ramp 4'6"
Stakes at east side of bar 3' 10"
Stakes at west side of bar 4' 0"
Highest spot on bar 3' 1"

The above results closely check with those made this morning and computed for the higher tide.

Tidal increase 1'9" between morning and afternoon surveys.

We have extended (on paper) the length of the ramp 62 feet beyond the 150 feet originally needed. This will necessitate ordering the remaining lumber from Makassar or Soerabaja to be delivered next boat.

We have had Papuan coolie trouble. After the rain this morning a few men straggled in asking for high wages than the 30 cents per day we had offered. This wage was recommended by Mr. Hoogland, the government official. This difficulty is due apparently to one or two trouble makers within the group. There were a few coolies hanging about apparently wanting work but they came late so we told them to return tomorrow morning. The mandoer for the Papuans was hired today. He is to be paid 30 guilders per month plus 40 cents per day for food. When Mr. Hoogland was informed as
Lip of beach  water edge

Note: o marks the stakes
to the difficulty we were having he immediately wrote a letter to his officer at Sentani Lake asking for the required number (40) of coolies. He is confident that we will be able to get them from there. The Makassar coolies spent their time in building a kitchen washing clothes, putting handles in the hammers, adzes, picks, etc.

April 27, Hollandia.

This morning we staked out the site of the godowns. They are to be built on cement floorings of an abandoned building site to the north west of the ramp. It is the only available dry spot which is situated near the dock, ramp and road. The selected site is conveniently located and on dry ground.

(Sketch)

There is a small dry spot to the southwest (50 ft.) of the godowns that Ramm has selected for the radio shack. It has a full view of the bay and is situated close to aerial trees. Just back of the godowns is another fairly dry elevated spot which may be used for the whites living quarters. Brass is going to negotiate the renting or buying of two sheet iron houses facing the water and within 100 yards of the ramp. If the deal goes through it will not necessitate our building living quarters.

There were 25 coolies from Hollandia and neighborhood which turned up this morning for work. They cut more lumber for the godowns. This lumber is supposed to be straight grained jungle wood of a durable nature. This afternoon at 3:00 o'clock there were 36 coolies from Sentani Lake wanting to work. After some dispute over wages it was settled upon that they work for thirty cents per day with rice or sago and tobacco furnished.
They are to begin work tomorrow at 7 o'clock until 3 o'clock. They apparently prefer to work their eight hours out without a break.

The tide was checked again today. A chart was furnished by the ship's captain of the government vessel which listed the tide for each hour of today. The high low tide was at 4.30. We put in a permanent guage and recorded the tide at the $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{3}{4}$ hour of four. The maximum tide at the end of the ramp was 4' 7" and at the highest point of the bar 3' 4".


The morning the godown site was restaked and the hobs for the uprights dug, the remainder of the gasoline was brought under cover, beginning of a privy and other odds and ends of jobs done. This afternoon the Makassar coolies peeled bark off the green logs.

The first of our labor problems are over. This morning there reported for work 36 coolies from Hollandia with one mandoer and 37 coolies from Sentani Lake, two of their number acting as their mandoers. They apparently worked well judging from the amount of logs they brought in. That evening we hired another mandoer to take official charge of the Sentani coolies. His pay is the same as the other mandoer—30 guilders per month and 40 cents per day for food. At present we are feeding the Sentani coolies 1$\frac{1}{2}$ lb. of rice per day. We hope that within a few days sago will available which is a cheaper food in this region.

April 29, 1938, Hollandia.

Last evening, the captain of the Bantim, a government vessel in Hollandia Bay, turned on his two 1000 watt lamps to demonstrate their capacity. He has kindly offered to assist us in illuminating the ramp site for the
Hollandia Bay

Suitable Spot for Wharf, Living Quarters

Swampy Ground

Suitable Spot for Paving

12 m.

15 m.
night landing of the airplane.

Today's work: Cut off lip of beach in preparation for ramp. Cut uprights for the godowns. Built oven and W.C. Started ataping the Papuans godown. There were 87 coolies and two Mandoers reported for work today, 37 from Sentani and 48 from Hollandia. Ten worked on the Papuan godown and 15 moving dirt cutting and pealing lumber. The remainder of the coolies cut jungle wood for the ramp. They cut six piles in all of the following lengths 7.70 M, 7.00 M., 10.00 M., 10.00 M., 14.00 M. and 15 M.--a total of 63.70 meters of lumber suitable for the ramp stringers.

This evening there wer five boat loads of atap brought in. I believe this completes the 3000 sticks ordered. It is to be used as the walls of the Papuans house and the roof of the whitemen's living quarters.

Sketch: 

See following page.

The above is a diagram of the lower (east)portion of Hollandia where the ramp and buildings are to be constructed for the
April 30, 1938. Hollandia.

Today's work - construction or rather moving of a narrow gauge railway for transporting small rock for a fill. Cutting and fitting of godown logs. Debarkings logs.

There were more stringers for the ramp brought in today (Sentani) 16.4 M, 9.5, 9.6, 11.0; Hollandia 12.0 M., 12.0, 10, and one too small for use. Total 80.5 meters.

There were 90 coolies that reported for work today--37 Sentani and 51 Hollandia. Twenty-three of the Hollandia coolies helped us about the godown moving material, etc. The rest of the coolies cut jungle logs for the ramp.
May 1st, Hollandia

Today being Sunday there was no work done. The coolies of Sentani and Hollandia are so missionized that they refuse to work on Sunday. It is rather inconvenient for us in that we would like to crowd our work along.

We were invited to the home of Mr. Hoogland for dinner, or rather lunch. It consisted of a large rice-tafel, the national dish of the Dutch East Indies.

May 2nd, Hollandia

The work today has been a continuation of the building of the godowns, completion of the narrow gauge railway, filling of the swamps about where the tail of the airplane is to come and a continuation of the work of collecting jungle timber.

There were 112 coolies reported for work today, 56 from Sentani and 56 from Hollandia. Each day there are more reporting for work. We will soon start weeding out the good from the bad.

There were four more ramp logs in today, about 10 m. in length. The loggers also brought in a quantity of small sticks which will be used for battens on the godown and houses.

Another shipload of atap arrived today. We have not counted the quantity as yet but I believe this must be the last of the 3000 sheets ordered. This will be used as wall and roofing for the houses, white and coolie.

May 3rd, Hollandia

Today we continued working on the godowns. One of them is completely framed and the zinc plates are going on. There was a crew of Papuans who continued to move filling material to the end of the ramp. Another small crew with a Makassar coolie in charge is laying railway out to the end of the dock. This rail will be very useful in transporting the cargo from the end of the dock to the godowns.

There were as usual two groups of natives with a mandoer cutting timber for building. One of them concentrated on large logs for ramp stringers, the other on
building timber (jungle wood). According to the Hollandia mandoer, he brought in five logs for the ramp but was unable to beach them because of the very low tide. They are to be brought in tomorrow morning.

This evening the gesaghaber, Mr. Hoogland, came down to view our work. He seems to be much interested in what we are doing and has in an official way helped us a great deal. It is a comfortable feeling to have the government on our side, that is, working with us rather than against us.

Today's labor line was the same as that of the previous day, 112 Papuans, ⅔ of whom came from Sentani, the other half from the vicinity of Hollandia.

May 4th, Hollandia.

The godowns are gradually nearing completion. They should be finished in a week's time. Today's lumber crews brought in more building material for radio shack and living quarters and more lumber (jungle) for the ramp. There is a total of about 261 meters of ramp stringers, two thirds of the total amount needed.

There is a similar number of coolies today as the past two days. This is slightly less than previously calculated. The previous two days' coolie figures being in error. There is a total of 112, 51 Sentanis and 61 from Hollandia. We intend to decrease the labor line this coming Saturday, pay-day. The wages of the coolies is 30 cents a day (8 hours work); 5 cents of the Sentani's pay is taken from their wages for machen (food). At present we are feeding them each a pound and a half of rice per day. We have put in an order for sago, their native food, which is cheaper as it is supplied locally. The two mandoers, Marcus and Cornelius, receive for their labors 30 guilders per month with an allowance of 40 cents per day for food.

We have in addition to the Papuans, 12 Malays, one the head cook Asit from Sourabaia, and eleven, including 2 assistant cooks and 9 coolies, from Makassar. The head cook's salary is 40 guilders per month with a possible increase to 60 guilders. The second and third cooks receive 30 and 25 guilders per month respectively. The nine coolies from Makassar receive each 20 guilders per month. We of course furnish
all the Malays with food and lodging.

May 5th, Hollandia

Today's work was a continuation of yesterdays program. One of the godowns is nearly complete and the other following closely behind. The two lumber crews returned from the jungle this afternoon with 6 sticks for the ramp, 3 of which on inspection are useless, and more jungle wood for building purposes. There was the same number of coolies working today as yesterday (112). Twenty are helping with godown construction and filling and grading about the building site.

A radiogram from Archbold today "Dyaks June boat". This is a month later than we had anticipated. It is to our advantage in many ways for we will not have to worry about housing quarters for them for a while.

Today Mr. Schneider called in answer to a note. Mr. Brass wrote to him yesterday. He has consented to rent us his mission house for 15 guilders a month. This is to be remodeled into living quarters for six or more white men. This house will require considerable renovating to make it liveable.

May 6th, Hollandia

Today has been a continuation of all the previous days' work. The two godowns are rapidly nearing completion; the first one is complete except for the door, the second one is framed and half the sheet-iron walls are up. Brass has been in charge of a renovation of the house we are renting from Mr. Schneider. A clearing out of the refuse and a bath in hot water and creolene is under way. Brass has found it necessary to replace some of the joists and floor plates as well as the floor. Mioloke began cutting the timber for the radio-shack. This radio-shack, unlike the godowns, will be built with atap instead of sheet iron.

This evening we had a visit from Mr. Hoogland and the police officer and Mr. Noes, the doctor. The former two being the only white men in Hollandia, the latter is a Malay.
May 7th, Hollandia

Nothing unusual happened today, the work progressing as we might expect. The godowns are nearing completion, with a few more zinc plates to cut and fit and the doors and windows to make as well as some shelving and benches which will be left to a rainy day. Brass is busy with the revamping of Mr. Schneider's house. New joists and flooring are replacing those destroyed by the termites. The lumber crews returned with their usual supply of ramp and building timber. Today being Saturday, the coolies (Sentani and Hollandia) were lined up for their pay. They had worked eleven or less days with a maximum pay of 3.30 guilders. They all received their wages cheerfully and with little squabble as to wage or time worked. After receiving their pay they flocked to the Chinese stores and spent at least part of their salary for such knick-knacks as met their fancy. One fellow opened his pocket, showing me a few doughnut-like confections that he had purchased and was taking back to his campong. Other things that were purchased such as white cooks' caps, small looking glasses, oil cloth belts, soap, bright cloth for sarongs, etc.

This evening Brass is paying the April wage of the Makassar coolies and the Javanese cook.

The total pay off today, 375.98 guilders—Hollandias 158.80, Sentanis 110.75, Hollandia mandoer (Marcus) 9.90, nine Makassar coolies at 5.00, 45.00, three cooks 29.78, 10.00 and 5.75 respectively.

May 8th, Hollandia

It is Sunday in Hollandia and all workers spent the day in rest or religion or both. There are both Protestant and Mahomedan religions in this small village, the latter being attended by Malays and the former by Chinese and Papuans. From our house we can hear the sermons and the music. I didn't understand the sermons, being given apparently in Malay. Must profess that the music was not recognisable though quite melodious with the bamboo flutes and voices.
This afternoon I hiked for about 7 kilometers along the trail from Hollandia to Sentani. It is beautiful country. At first the trail leads through the heavy jungle growing along the limestone ridge to the south. Then the trail drops in elevation along the edge of large sago swamps. Here in the sago swamps I met two groups of Papuans from Sentani. They were hunting and fishing along the creek.

There was a total of five fish (2 lbs) which was probably the result of their day’s labor. There were three different types of fish. Two were somewhat like our bass. There were large dark blotches along the side and their heads were large for the body. The other type was like our catfish except it did not have the spines or the whiskers. One of the Papuans, a young boy, had a red complexion and red curly hair. He was not the sun-burnt red but rather a rusty red which covered him from head to foot. At first I thought he had been painted but on closer examination it appeared to be his natural complexion. I purchased two bows and six arrows from these people for one guilder.

May 9th, Hollandia

Today our work progressed seemingly slowly. Work was continued on the godowns and on the reconstruction of the white living quarters.

There were a total of 112 Papuans reported for work, 51 Sentanis and 61 locals. About 20 of the locals helped about the godowns and the remainder cut jungle timber. One group concentrated on white timber and the other on ramp timber. The latter is apparently quite difficult to get but not as difficult as the white floater logs. These we need for the building of a raft on which we will bring ashore the heavier pieces due on the boat the 21st of the month.

May 10th, Hollandia

There is still a bit of work to do about the godowns, cement the floor of one, patch the floor of the other, build and fit the doors, build shelves, etc. Brass and Mielcke are busy at the new residence. The former is busy putting in joists and beams, the latter building a kitchen.
Same number of coolies reported for work this morning (112), 61 locals and 51 Sentanais. The jungle crews worked at ramp timber and timber for the float. Up to date there is a total of about 425 meters of ramp timber. This is 40 meters more than our ramp as planned needs. Tomorrow will be the last day at ramp timber. The excess is in case there are some timbers which prove to be unworkable.

Today a letter from Mr. Ebeli saying he was out of gasoline for his Ford engine that runs the sawmill. Tomorrow we send him some local gasoline as well as 3 drums of our aviation gas.

Mr. Keese, a German settler, bringing fruits, vegetables and fowl for our consumption (£4.50) Included two large bunches of bananas (.50); vegetables of three varieties, four chickens and eggs. He has offered to send in fresh fruits and vegetables two or three times a week. Fresh food is always welcome to our larder although up to date we have for the most part used only fresh foodstuffs.

May 11th, Hollandia

The work goes on; a door is being made for the godown, cementing a floor, rebuilding at the new residence, remodeling new residence and building the radio shack. We have accomplished a great deal since our arrival but there is still a great deal more work to do. It will I hope be done ahead of schedule.

The jungle crews finished the ramp stringers; a total of some 480 meters, some 80 more than we actually need. There is also a good supply of white wood in now; about ½ of what we shall need for the construction of the raft.

The same crew of Papuans reported for work today (112).

Brass found what appears to be a portion of the lower jaw of some mammal beneath the mission house (our new residence). I am uncertain as to its classification and it will be returned to the museum for identification.

May 12th, Hollandia

Today we completed the cementing of the second godown; the other one had a good
cement floor which belonged to a previous building on that site. The kitchen and living quarters of the new residence are approaching completion and the uprights are in for the radio shack.

The same number of coolies reported for work. The jungle crews concentrated on white wood for the float. One more day should finish their work with white wood.

Late this morning two navy planes settled in Hollandia Bay. They were an old (6 or 8 years) model Fokkers with two motors and wingspread of about 75 feet. They certainly impressed the people of our fair city. According to the radio operator who dined with us tonight, they are patrolling the coasts of New Guinea, Borneo, etc., looking for Chinese fishermen or rather "Japanese fishermen" who are inside the three mile limit without the necessary permits. The Dutch are worried about spies of the Japanese variety. The best catch of these planes was nine in one month.

May 13th, Hollandia

The work goes on. The door for godown 2 is done and I have started cutting wood for shelves. Harold begun a shed for the Kohler electric unit. Brass worked or swore at the rotten lumber in the house while Mielcke jumped about between kitchen, radio shack and adze men.

The jungle crews have brought in enough white wood for the raft as well as some small wood for use on the atap buildings.

The food for the 51 Sentanis has up to date been 1½ lbs per man per day. Yesterday and today we received sago, their natural food, so we have changed their diet back to their normal one. Sago comes in a basket 40-50 lbs each and is delivered at 55 cents per. 5 cents is for transportation. Up to date we have received 14 baskets, 3 yesterday and 11 today. In looks the sago is like a thick brown flour paste and when cooked is a translucent jelly-like mass. There has been some dispute as to the quantity to feed. The doctor says one basket for 46 men for one day while the gesagheber, Mr. Hoogland, says that one basket for 50 men is enough. Mr. Brass, however, thinks that men should be fed ...
the Papuans be given all they want but that none be wasted.

May 14th, Hollandia

The work goes on slowly; each day a bit more accomplished and gradually our tasks are completed. I worked on the shelves in godown 2 today, Ramm on the generator shack, Brass on the white's residence and Mielcke in the radio shack and kitchen. We reduced the number of coolies this evening by 22. "e selected the best of the 61 locals, leaving 37, and the gentanis 51. This coming Monday we will weed out the Sentani coolies. There was a round of tobacco this evening and a pay of the discards 180.00 guilders.

Two new baskets of sago arrived today. I am hoping that there will be enough with what we have and what may come in to keep the Sentanis in food during their stay. It is cheap food and the people are accustomed to it.

May 15th, Hollandia

Today our work progressed rapidly and well, the floor on the radio shack, atap going on the European residence, shelving in godown 2, began laying beams for the ramp and the float is well under way. The crews that have in the past been in the jungle collecting wood for building were today kept in Hollandia to help about our work. The increased number of men here and the work they accomplished made it appear as though more than usual had been accomplished.

Unknown to me Mr. Brass ordered an additional 3000 sheets of atap. This has been duly ordered and delivered through govt. channels.

Today we again reduced our labor line by weeding out the poorer workers of the Sentani group. We fired 19 and 1 quit making a total of 20 Sentanis less than we had before. At present our crew of Papuans is 37 locals and 32 Sentanis. The group as a whole is good; the individuals are not speedy but they do a good days work when you consider the wage of 30 cents per day without food or 25 cents a day and board.

We hired a local carpenter today who is at present making a table for our new residence. His pay is 1 guilder a day and he feeds himself.
May 17th, Hollandia

One godown is complete, shelves, floor, door and all. I started shelving in Mielcke's godown and should have it completed by Friday. The rafters are going on the radio shack, logs are sorted and being put into place for the ramp, European house is being whitewashed, bathroom is going up and the raft is half completed.

A heavy rain this morning delayed our work this morning but in spite of it we apparently accomplished a good deal.

A telegram to the government here today says that there are seven large cases arriving in the next boat, two of which weigh 1000 kilos. Our raft, when completed, should be able to bring them ashore.

May 18th, Hollandia

Today's work progressed much as usual and providing nothing happens of an unexpected variety, we should be ready for the cargo when it comes on Saturday. The living quarters, the radio shack and the godowns are all nearing completion.

There is the same crew of coolies working as on the previous two days, a total of 69. The carpenter we hired three days ago worked one day and quit. He was in the midst of making a dining room table when he decided that he would like to have a month's contract. What he needs is the "sack" with plenty of hell.

May 19th, Hollandia

Our work goes on—tomorrow should be the completion of the godowns, the radio shack, European house, kitchen, washroom and w.c. as well as the raft.

Today Mr. Ebeli came in. He reports that he has cut 450 pieces of our lumber, 40 of which are at Pirn and 200 more on the road to Pim. There are some 50 more pieces to cut. Apparently transportation is holding him up. This difficulty is due to the fact that the customary wage for him to pay natives is 10 cents per day and we have been paying 25 and 30. The Papuans are holding out for higher wages.

This evening the gesagheber is coming for dinner. We are entertaining the govt.
May 20th, Hollandia

Today we finished the godowns, the radio shack and our own living quarters. The one big job ahead of us is the construction of the aeroplane ramp. This ramp is started but there is still a great deal of work to be done on it yet.

Last evening we advanced Mr. Ebeli £130.00 for the payment of the coolies for the transportation of his lumber to Hollandia. Today 33 pieces of our ramp planking arrived and we are in hopes that it will all be in within a few weeks.

Tomorrow the monthly boat is due to arrive with our cargo from New York as well as additional supplies from Sourabaia. Dr. Rand is also aboard and possibly another cook for the inland party.

May 21st, Hollandia

Today there was little work accomplished because of the completion of most of our tasks and the continual expectation of the ship with our cargo. The boat has not arrived as yet and it is now 7.30 in the evening. It was difficult to get things accomplished, even the small jobs, for the population of our little village has doubled or trebled due to the boats expected arrival. There were so many spectators to distract our boys. At present we are waiting for the boat and we will probably have a hard night's work ahead of us.

This evening I purchased a *halanger* from a native (see species account) and spent the evening preparing its skin. It is my first New Guinea mammal.

May 22nd, Hollandia

Sunday and our day of rest was spent in one of anticipation for the K.P.M. ship due yesterday morning has not yet arrived. We have all become impatient but there is nothing we can do but wait.

Mr. Hoogland, the gesaghaber, is I imagine the most impatient for his wife to whom he was married a month ago by proxy is due to arrive. He had planned an elaborate reception for his wife's coming. The streets have been cleared, a large arch with "Welcome, Hollandia" erected, two native orchestras, a dance ceremony and an
Wij hebben de eer U bij dezen beleefd aan te bieden een programma van de feestelijkheden, georganiseerd ter eere van de komst van mevrouw Hoogland te Hollandia. Van deze gelegenheid maken we gebruik, U en mevrouw uit te noodigen op den 22 sten des morgens om 10 uur op de receptie ten huize van den Gezaghebber aanwezig te zijn. (Kleeding licht)

Het comité van ontvangst.
22 Mei 1938. 10 uur V.M. RECEPTIE ten huize van den Gezaghebber.
Van 10.30 tot 11.30 volksfeesten.
Van 14.30 N.M. tot 16 uur voetbal.
Van 8 uur N.M. tot feest op de tennisbaan.

[Signature]
elaborately decorated church all for the bride. Yesterday he sent about an invitation to the reception and various functions of the day; today he sent about a note of cancellation of planned program. Below his invitation

Today Mr. Brass caught in a man trap placed by our Makassar coolies in the godown for Papuans. The result was a severe blow on the head by an iron bar. Willem, one of the local coolies, came to us and asked for the use of one of the godowns as a sleeping quarters for his and his friends families. It was granted and a little later he returned and asked for a lock and key, saying that he wanted to lock the women and children in while the men were gadding about. Not very trusting of their fellow Ppauans.

May 23rd, Holländia

This morning we began our work as usual regardless of the late coming of the monthly boat. By noon, 12.30, the boat appeared after a delay of 2 days and 3 how. Our work changed to one of shifting and checking cargo, rather than the building program of the past few days. It was not until 2 oclock the next morning that we finished checking the shipment.

Lieut. Schraeder who is to be in command of the military base station to be constructed here, arrived. We knew that he was to be a member of the expedition but we did not know when he would arrive; thought it would be the following boat. With him are several (10 or 12) soldiers who are to assist in the construction of buildings. He has also a large supply of cargo, equipment and supplies for the 60 soldiers, prisoners and Dyaks who are scheduled to arrive next boat.

Dr. Rand also arrived. He, the assistant leader of our expedition, has been for some months (4 or 5) in Java arranging for and getting the permits for our work in the Dutch East Indies.

May 24th, Holländia

Today has been one of shifting and arranging cargo within our two godowns. It takes time and patience to arrange things in a systematic order.
Today we paid the boys (coolies) again. Six quit and one fired (2 locals and 4 Sentanis) leaving a crew of 60 Papuans, 27 Sentanis and 33 locals. I hope that more do not leave in the morning although it would not be serious for we are confident that we would be able to get more local labor if needed.

May 25th, Hollandia

Our work went on much as usual today. This morning I finished arranging material in #1 godown and this afternoon I moved material from Brinkman's godown to #1 of our own.

There was no labor trouble; our picked crew all returned for work. One man previously fired tried to slip in under an assumed name and the same being tried to collect this evening for two days back work. He was fired some time ago for being a shiftless lout; the laziest of his kind.

May 26th, Hollandia

The work goes on. Rand is building the punt, Ramm on the radio, Brass checking store and I have started the Makassar coolie house. This house is being built directly behind the two godowns on an old fill, apparently the foundation of a previous building. The building is being made 6 x 10 meters. The posts are set 70 cms in the ground, the floor 60 cms above the ground, wall 2.30 cms and a ridge 1.50 cms above the wall plate. It is being built of jungle wood and atap with the exception of the floor which is soft wood planking.

Most of the coolies (same number as yesterday) worked about the buildings today. A small crew of 10 or 15 went for timber and returned with 21 logs suitable for joist, plates and ridgepoles.

Sickness in our Papuan crew has been relatively small; there were the expected cuts and bruises, the worst being a leg split to the middle with an axe. Our Makassars however have been sick a good deal of the time. Of the total of 12 we had (now 14), they averaged 2 or 3 men sick each day. This illness is principally malaria but one of the chaps (Massa) has groin swelling that has kept him confined.
for the past week. Yesterday he was to have had an operation. I did not see
him today but assume that it was successful.

May 27th Hollandia
I accomplished what appears to be a good deal today. The Makassar coolies house
which I am building (1½ days) is now completely framed, the uprights are in, the
wall plates and ridge pole is up and the short planks for the floor support are
set. Tomorrow we will begin the rafters and uprights that carry the upright. Hope
that it will be completed next week.

This evening we received our first music and voice over the radio. This evening
you could without trouble get various amateurs in the U. S. They came through
clearly and plainly. Harold estimates that it will take about one week more to
completely set up the radio.

Rand is busy with the punt. Two days now should see it completed or nearly so.
Brass and Mielcke are at work on the ramp, Brass laying the timber and Mielcke
cutting the joists. The ramp is the big remaining job. It is heavy tedious
work and later on our work may be limited by the tides.

Mr. Schroeder, the lieutenant, is now at work constructing a godown for the
military supplies. He is building one larger than ours (7½ x 30 M.) which should
be ample for his stores. He is building along the road just south of our Sentani
lodge. Here there was a cement foundation or floor which will be of use. This
evening saw the spot cleared of rubbish and the corner posts set up.

May 28th, Hollandia
Todays work progressed rapidly and well. Finished the rafters and put stays on
one side of the roof. There was a crew of eight working, 4 tying, 2 feeding stays
and 2 cutting rotan. The stay is put on like ?? except every sheet (100 x 50 Cm
is tied down by ??? the packing stick to the rafters. Today Harold put a pulley in
a large tree to the north of the godown. It is some 100 feet above the ground and
forms a span of about 100 yards to a coconut palm near the radio shack. This long aerial is to be used for 600 m. band. Brass worked at the ramp decking. With the aid of an electric drill, he was able to lay about 15 feet of decking. Mielke continued with the cutting and joining of the ramp stringers. Rand supervised the caulking of the bottom of the punt. It is a very slow job. It will take a day and a half or two days to complete the bottom caulking. We looked over our stock of lumber for material for a boat but found nothing that would be suitable.

May 29th, Hollandia

Today is Sunday again, a day of rest for the whites and church for all good Papuans.

This morning Willem called for me at 6.30 and by 7 we were on our way to Tabati, his campong. Along the coast by prow is beautiful. The first half of the way there is a very heavy jungle coming down to a rocky limestone shore, the latter half being a sandy or swampy beach with coconuts or mangroves. The islands and the irregular coast line as well as the coral reefs beneath add to the picturesque-ness of the trip. Tabati, one of the larger villages on the eastern part of the bay, is situated in the inner bay, a few miles east of Pim. It consists of 75 or 100 houses built out over the water to either side of an elevated walk made of split coconut palm trunks. I walked along the village walk and into the communal house for men. It was a rather poorly constructed house of rough lumber and atap. The inner platform consisted of a higher platform in which were kept the dance ornaments and a few personal belongings. These danse costumes were of a modern type and had beads, paper and colored paints mixed in with the native goods. Cassowary seemed to predominate the plumes of the head-dress, while a few had plumes of the bird of paradise. There were no mammal skins or ??? used in their decorations. Hanging from the roof of the mens house were such objects as fish skulls, vertebrae, fins and the like which I suppose had the effect of magic on the inhabitants. Women were forbidden to enter the house and as far as I could discern no one came within 75 feet of it. Young boys were also forbidden to enter
but they however frequently snuck into the house and remained there until chased away by yells and gestures by the elders of the house. The oldest boy which remained in the house was of about 15 years.

Returned to Hollandia at 11.30 this morning in time to dress and accompany the group to the home of Mr. Hoogland for a rice-tafel. It was an excellent meal, the kind that calls for a siesta afterwards. I slept till 5:00. This evening we tried out one of the portable radio sets. The transmitter is not working nor is the third band on the receiver.

May 30th, Hollandia.

The work today progressed much as usual. The planking on the ramp is going on and tomorrow should see it up to the lip of the beach. The ramp stringers are going along slowly. Hope that they will progress more rapidly now that the crew understands this work. Ramm worked at the radio and Rand had one coolie caulking the punt. I have finished laying the atap on the roof, will start in putting on the floor and walls. I still have trouble in handling a large crew (8 or 10) of Papuans for each thing that they do must be demonstrated by signs. I have learned some Malay but not enough to give an intelligent order.

May 31st, Hollandia

The walls of the Makassar house are ready for atap; tomorrow it will go on. Harold is busy with radio, a one man job. Mielcke is working with the ramp and aerial poles. Brass is laying the ramp decking and Rand starting the building of an adjoining house for the Europeans.

Paid off, or rather, paid the Makassars their monthly salary.

This evening Willem, one of the Tabati boys, asked for a raise in salary for the local laborers. It was refused and so possibly tomorrow there will be a shortage of labor; a strike in our labor line. It is no bloody good to ask for a raise in pay.
June 1, 1938. Hollandia.

Today I completed the building of the Makassar coolie house. It has taken less than a week (five days). There still remains a bit of flooring to be put in but this will come late, on delivery of palm stem strips. The work of the others goes on much as usual with more accomplished each day.

Purchased two (2) Phalangers from the Papuans today (see species account).

Paid off or rather paid the monthly salary, 1 guilder per day and 40 cents for food. They seemed happy and they should for it is a large salary for this region.

Some dispute as to Sentani regulations. Their cook is doing his cooking within the large room and not using the small joining cook shack. The reason for this being that the drainage is poor there and after a rain it is much like a mire. They will be allowed to continue their work of cooking in the building and we hope that the house does not burn down for it would endanger the radio shack and Makassar house. The food for the Sentani is at present Sago twice a day and as much as they can eat, and rice once a day—6 kilos or \( \frac{3}{4} \) lb. for the 25 men.

June 2, 1938. Hollandia.

Last evening one of the Phalangers (No. 2) escaped and so the need of a proper cage for the remaining animal and others that I hope to receive. With the aid of Unis, my number one coolie, the cage was built this morning. With a crate for a frame extended with sticks and a wire screen covering three sides (in part) and the top and large strong cage was constructed.

This afternoon I spent supervising the cleaning up of the Makassar coolie house. Other work goes on as usual. The rafters and floor are being laid on the European house #2 adjoining the one which we rent from
Mr. Schreuder. The ramp is progressing rapidly one day past the lip of the beach with the planking and well in the water with the stringers. I estimate that about 100 feet of the 250 feet has been completed. Two weeks should see it completed.

Last evening Harold went on the air for the first time. The equipment is working well, far better than we had expected. An operator in Oklahoma was contacted who informed us that Archbold with the Cuba was leaving the United States in thirty-five hours. This information was received from another radio operator in San Diego. I hope more information will come through this evening. A call was sent to Archbold this morning by Rand stating that it would be two weeks before we would have the ramp completed.

June 3, 1938. Hollandia.

Began a small building today to house the photographic equipment. It is to be a shed-like building with a perched roof, one full atap wall and three half walls. Size is approximately 3.50 m x 3.00 m. It is located between the wash house and the new European building being built adjoining Schreuder's building on the north.

The ramp is moving on rapidly considering that work is limited to low tides. The floor is in the new European house and judging from the rate that it is progressing it will be completed in two days.

Harold has been working at the radio all day today. Last evening it was confirmed by the Oklahoma operator that Archbold was leaving in nine hours for New Guinea. If that is true he is at present somewhere Hawaii and California for it will take about 17 hours to make the flight. Today Harold heard both Hawaii and San Diego operators talking with KHAHX, the Cuba. This evening we may receive further news. I shall go and see.
June 4, 1938. Hollandia.
I accomplished little or nothing for my coolies were recruited as part of the timber crew. There was need of small legs in the constructing of a rock raft to hold the ramp down.
We followed the last part of the flight of Cuba last night. It arrived safely in Hawaii about 1:10 this evening. There is further schedule tonight in which we may learn more about the plane and its plans.

Sunday and no work. Rand and I took a walk this morning northeast though the mangrove and sago swamps and into the jungle. It was a poor forest most of it having been cut over or where virgin consisting of relatively small trees. Rand managed to secure several birds (three) none of which were of particular interest to him, that is they were not rare or unusual. The only mammal signs we saw were tracks of a medium size rat in the mud flats of the sago swamps and pig tracks and rootings throughout the region. They were, however, more numerous in the sago swamps or the cutover grass land and border forests.

June 6, 1938. Hollandia.
Today being a religious holiday all of our Papuan laborers remained in their campong. What little work we did was carried on by our Makassar coolies and the two maendoers. We concentrated on laying the ramp flooring finishing four more or less meetres. We will soon be out of timber to lay unless some is delivered tomorrow.

We talked with Archbold and Rogers last evening. They are in Hawaii and leaving tomorrow 11:00 our time for Wake Island. From Wake they will fly to Hollandia arriving here on the morning of the 10th. I hope they have a safe successful journey.
June 7, 1938. Hollandia.

Today I built a frame for the winch. Rand turned the punt and began the top plashing. Atap is going on the roof of the new house and the ramp progresses slowly seaward. We are at present rushing all work for the arrival of the plane on the morning of the tenth.

Purchased two cuscuses today— a price of 2.50 guilders.

This evening Rand and I took a walk along the trail to Sentani. Last evening during Rand's walk along the same trail I noticed a flight of small insectivorous bats crossing the trail. We were determined to trace the flight to the cave or room from whence they were coming. The cave from which they were coming is located just south (about ten yards) of the Van Sailin residence at the top of the hill leaving Hollandia. Rand as he approached the entrance saw the streams (2) leaving the rocky mouth of the cave which had been more or less — by natives. On approaching the entrance the flight out ceased with the exception of an occasional one or two. This flight through the jungle was one of the most interesting things observed. The first bat was seen about 5.50 before the sky was actually darkened some 200 yd. south of the actual entrance. The general flight was along a rather restricted route (10-15 yd. wide) southward through the jungle. They were flying low (5 to 10 ft.) through the thicker foliage of the low jungle bordering a small wash. There seemed to be little or no feeding in flight but rather a determined flight toward an assured feeding ground. I shall make further observations later.

June 8, 1938. Hollandia.

This morning was spent in the water with three Papuans removing coral blocks along the channel which the airplane is to use coming into the ramp. Three large blocks (4 x 3) were broken down and removed and another three drilled in preparation for the blast. High tide this afternoon
prevented work on the reef so we resumed the work on the photographic room atop sticks or going on. The ramp, annex to the house, the punt progresses slowly but surely.

The rain which has been practically continuous throughout the day has slowed our work down considerably. This morning regardless of rain I removed several more of the coral block. The cold water (from stream) and air cut our work shorter than I had expected. The coolies are quite effected by change to colder conditions. The work on the ramp and punt as well as the area progressed slowly.
Purchased two Phalangers today, a mother with one young (see notes on species account)
The Guba is at present on it way to New Guinea, the last lap of its flight. It will arrive here tomorrow morning about seven o'clock, having left Wake Island late this afternoon. Hourly or half-hour schedules will keep us in contact with the plane.

June 10, 1938. Hollandia.
The big event today was the arrival of the Guba this morning about 6:00. It came out of the clouds to the east, circled Hollandia Bay and settled in Humboldt Bay beyond "Cyn Pulo". The rest of the day was spent in acclimating the six new arrivals to their new home, Hollandia, at the same time trying to accomplish some work. I redrilled from holes in the niggerheads in the coral reef channel and set five charges of dynamite only one of which went off, the other four were duds. The caps seem to be defective or else we are not making the set correctly. The one that did go off made a beautiful job of it, completely shattering a large niggerhead. The fish that were collected after the blast included 13
different kinds. They were not saved. The new members of our expedition which arrived today are:

Richard Archbold, Russell R. Rogers, Gerald D. Brown, Raymond E. Booth, Steve Barrinkka, Capt. Lon Yancey.


Work has been rather hit and miss today. This morning I helped Archbold lay a few (2) charges of dynamite in the coral reef and pottered around at this and that the rest of the morning. This afternoon layed planking on the ramp for several hours and then "piddled" about for the remainder of the day. We are quite unsettled here at present. The six "planesmen" are slowly becoming acclimated to their new environment and we (Rand, Brass and I) are attempting to turn the work of the base camp over to them so that we will be able to start on scientific studies shortly. I hope this coming Monday - day after tomorrow.

June 12, 1938. Hollandia

Sunday today. This morning Dick and I went into the cave previously found by Rand and myself back of the Van Saulins homestead. We were in the cave for 1½ - 2 hours and traveled over about 500 yards of the cave. The cave is the result of stream erosion (only during rainy periods) which has cut a rather narrow (average 6 ft wide) channel through the limestone formation. There are no large rooms and only few stalactites and stalagmites and these are poor, being dirty and brittle. This evening I returned to the entrance of the cave to collect several specimens. One shot with the gun into the entrance netted two and I hit two more with a stick as they flew out. See species note *Hipposideros*. 

This morning I skinned the four bats obtained yesterday evening and organized my collecting equipment. This afternoon I set out 100 traps, 60 rat traps and 40 mouse traps. The line begins on the west side of the trail leading to Sentani 300 ft beyond the summit (Van Saulens). From the trail it runs west up the mountain slope to the summit of the hill and then down the hill on the north slope to the brink of the limestone cliff. The line is a quarter of a mile in length or more and through a forest which has been selectively logged, that is logged in part for certain desirable lumber. Just above the limestone cliff was what might be called the only virgin forest in which the traps are set.

June 14, 1938. Hollandia.

From the 100 traps, 40 mouse traps and 60 rat traps I took this morning, 1 *Melomys*. One *Echymipera* was killed last evening by our Sentani coolies northeast of Hollandia ½ km.

Late morning Mr. Brass sent me a note saying that some natives had just obtained a *Halicore*. I proceeded to the spot and obtained a complete skeleton of the beast.

This afternoon was spent in preparing the specimens. This evening four coolies and myself went hunting northeast of Hollandia ½ kilometer in and above the sago swamp. The only evidence of animals in that vicinity was wild pig. We could hear their disturbed retreat through the brush and their rooting spots were common.


From the 100 traps took 1 *Melomys* this morning.
Spent the rest of the morning preparing specimens. This afternoon was spent in setting 100 more rat traps. These were set ½ kilometer southeast of Hollandia proper in the widened stream or rather wash which drains from the north into Hollandia Bay. The vegetation where the traps were set was a thin second growth forest principally of soft woods. The trees were all small the result of cutting, flooding the area as well as the changing river course. Beneath these scattered trees is usually a rank matted grass but sometimes there is low thin bush or litter. In one area (small) there is rather open bamboo which is for the most part solid - few other plants growing in with it except about the outer margins.

This evening I revisited the bat cave (see species notes for *Hipposideros*).


200 traps — 3 *Melomys*. These three were taken in the 100 traps set in the second growth forest above and to the southwest of Hollandia. One of the cuscuses (not previously mentioned in notes—see January 14 species notes) died last evening. It was brought in by natives from "Sho" (sp.?). It had during its capture received a severe wound in the fore-shoulder.

This afternoon I purchased a young *Mus* from a native for five cents. This early afternoon I spent hunting up the canyon and back along the spur north north east of Hollandia. It is a rugged region covered with a second growth forest.

The evening I revisited the bat cave and obtained 12 individuals by knocking them down with sticks as they flew out of the entrance.
June 17, 1938. Hollandia.

200 traps — 1 Melomys, 1 Echymipera. (See species accounts).

This afternoon the boys while rebaiting the traps found a large lizard-like reptile in one of the traps which was set in the open second growth forest with a heavy grassy undergrowth.

Two Hipposideros were taken this late morning from their roost in a small hole in a jungle tree.

The entire day with a slight interruption this afternoon by the KPM was spent in preparing specimens.

The remaining members of our expedition arrived by this boat. From the information I have collected there are 73 Dyaks, about 50 soldiers, 30 soldier carriers (prison labor), 2 Dutch scientists with their six helpers and one radio operator.

Yesterday afternoon the leader of the military party, Capt. Teerink, arrived on one of the three Dutch navy planes which patrol these waters of New Guinea.

June 18, 1938. Hollandia.

200 traps — 1 Melomys.

Checked the traps and prepared specimens this morning. This afternoon most of my time was spent observing the Cuscus and cleaning the Dugong skeleton.

Today is quite uneventful with the exception that this morning an adult Phalanger was brought in by a native.


200 traps — 0.

This morning several coolies came in saying that they had taken another dugong. The head only was saved for specimen (See species notes Halicore).
This afternoon was spent doing a little bit of nothing, doing odd jobs, things that I had put off for a spare moment, and today, Sunday, was the day.

The most eventful thing today was a short talk with my sister and brother-in-law via the radio. It was good to hear their voices again although it was only for a short time. Reports were that all were well and happy in our family circle.

June 20, 1938. Hollandia.

199 traps - 0.

This morning there was a sorting of the Dyaks. I received three as my collecting boys. Their names are "Bonding", Luwalsea", Jalengopoe". Our first task was to learn something of the art of collecting. We set out 195 rat traps along the base of the rock cliffs to the west of Van Sailein's and gradually up the hill slope to the saddle between the third and fourth knobs (small) west of Van Sailein's. From there we went down the opposing -- a short distance and then on to the west facing slope and up the slope toward the summit. The forest for the most part was quite dense with thick undergrowth and semi- -- jungle tops. The floor was of a rocky (limestone) nature and thinly but well covered with leaves and humus.

This afternoon I spent in the field showing the Dyaks something of way to obtain jungle mammals. We spent $4\frac{1}{2}$ hours cutting, burning, chopping, and looking about logs, stumps, litter, etc. but found nothing. This uneventful search was done in the jungle northeast of Hollandia 1-4 kilometers.

This evening the Papuan collectors brought in 14 Hipposideros.


394 traps - 0.
This morning we were up at 4:00 in preparation for the first of our reconnaissance flights. At 6:00 we left Hollandia flying over Sentani Lake and then in a more or less direct line to Prau Bivak on the Idenburg River. From there we went over Doormantop to Habbema Lake, circled about the lake several times and then returned to Hollandia via the same route taken in. (See notes taken on reconnaissance flight).

This afternoon a Papuan from Tobate brought in a prepared Cuscus skin. Spent part of this afternoon showing my three Dyak boys how to prepare a flat skin. This evening one of the Dyaks brought in a live Rattus which he had caught in the grass near our godowns.


391 traps - 0.

This morning I developed pictures and for an hour after lunch. The remaining part of the afternoon was spent in teaching the Dyaks to shoot with a gun, and doing odd jobs about the place. Caught a lizard in one of the traps set in the rain forest. A large python-like snake was brought in by the natives. They had captured it in the jungle southeast of Hollandia across Humboldt Bay. Another smaller snake was brought in by one of the Dyaks. A Makassar coolie trod on it while he was walking along a grassy trail near the lower (mouth) part of Hollandia River.


391 traps - 0

At noon an adult 9 Phalangez* and its young were brought in by a Papuan.

This evening three very young Rattus were brought in by natives from Cuyn Pulo.

This morning we made the second of the reconnaissance flights. We flew to Sentani, Prow Bivak, Habbema Lake, Wilhelmina top, Habbema Lake, Great Valley, New Lake, Habbema Lake, Great Valley, New Lake, Prow Bivak, New Campsite.
June 24, 1938. Hollandia.

391 traps — 1 Rattus, 1 Melomys.

This morning was the third of the reconnaissance flights. Approximate route travelled:— Hollandia, Sentani Lake, New Camp on Mamberano, New Lake, Habbema Lake, circled about Habbema, Great Valley, New Lake, Great Valley. East along course of stream leading away from New Lake, circled about the river to Mamberano River, Sentani Lake, Hollandia.

This afternoon showed the Dyaks the method of preparing study skins.

An adult *Dorcopsis* was brought in this afternoon by a Papuans.

A native from Sentani brought in 1 *Rattus* which he had caught in his company.


391 traps — 2 Melomys.

This morning two of my Dyak collectors brought in a *Pogonomys* which they had dug out of a hole on their return from their trap line. (See species note). The morning was spent in preparing specimens. The afternoon in searching through the jungle in the vicinity of spot where the *Pogonomys* was caught for another of the same species. We were unsuccessful. The later part of the afternoon was devoted to preparing specimens.

This afternoon the same Papuan came with another *Dorcopsis* skull which he had recently prepared himself.

This evening one of the Makassar coolies came in with two young *Rattus*. See species notes.

390 Traps – 0.

This morning (Sunday) Ray and I took a prow trip to Ingros and Tobate. We looked about the villages, took pictures, brought a few nick-nacks, and spread the word about that I desired cuscusses, wallabies, rats, etc. This afternoon was spent in preparing specimens and talking over the radio. I made my first contact with mother and father this evening through WCGCA. This afternoon a Dorcopsis and an adult Phalanger and young were brought in by the natives.

Forgot to mention that my Dyak collector caught a Echymipera and I purchased Rattus from a boy in Tobate and a tail of a Dendrolagus in Ingros.

June 27, 1938. Hollandia.

390 traps – 0

This morning was spent in another reconnaissance flight. It is the fourth and probably the last. Our route was Hollandia, Sentani, Camp #2, New Lake, Grand Valley, Habbema Lake, back to Grand Valley and circled about for a while there, back to Camp #2 on the Idenburg, along the Idenburg for a few miles, Sentani, Hollandia.

The Natives today brought in four Dorcopsis, and 1 Rattus.


390 traps – 2 Melomys.

Yesterday evening the three Dyak collectors and I went hunting by flash light along the trail toward Sentani Lake (south of Hollandia). Shot one Dorcopsis with one young.

The morning was spent preparing specimens and the afternoon in developing and cataloging pictures.
This evening one *Dorcopsis* was brought in by a native.
The *Rattus* prepared today was collected by one of the Dyak coolies. It was probably caught near their dwelling quarters behind the godowns.

This morning Guba landed on the Idenburg for the first time. They (Capt. Teerink, Lieutenant — and Dick) inspected the region for a camp site. A suitable one was chosen and ten men and their months' food and equipment were taken in this afternoon. At present they are *loading* the ship in preparation for an early flight in tomorrow.

The two Malayan mandoers, who are to be left in Hollandia as collectors while we are inland, were given 25 rat traps each to set in the jungle for rats, etc.

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June 29, 1938. Hollandia.

440 traps — 4 *Rattus*.

Purchased (35 cents) 1 *Echymipera* and another juvenile was brought in by the Papuan collectors during their daily hunt through the jungle. These two collectors also brought in a *Melomys*.

This early morning I was in the cut over rain forest north of Hollandia. Later returned to Hollandia and prepared specimens. This afternoon attempted to show the two Malayan mandoers, Marcus and Cornelius, the method of preparing mammal skins. Reaminder of time spent in preparation of morning's catch.

This evening I went hunting with the flash light again, Along the trail to Sentani Lake south from Hollandia, I was not able to obtain a specimen but I had a quick glance at a *Melomys*-like animal it skurried through the thick brushy cover of a limestone outcrop in a cut over rain forest. Also saw one *Echymipera* running along the trail through the rain forest and along leaf-covered open spots. It is quite possible that it was hunting for frogs and insects which were numerous in that area.

443 traps - 1 Rattus
1 Dorcopsis was brought in the evening by natives.
This morning labeled frogs and fish and prepared one specimen. Afternoon
I went into the jungle looking for mammals of any sort but I was unsuccessful. This evening I again went into the jungle to follow the line of flight of the bats. (See sp. notes of Hipposideros)

Lieutenant Schreuder kindly gave me the list of members of the military and Dutch scientific party. With that in hand I will make a list of our expedition members:

American party:

3 scientists - Brass, Rand, Richardson.
8 non-scientific - Archbold, Booth, Brown, Yancey, Rogers, Ramm, Barrinka, Weilke.

5 Cooks
9 Macassar coolies
2 Malay collectors.

Dutch party:

Dr. Toxopeus
1 assistant
2 collectors
2 boys
Dr. Meyer Drees
1 Assistant

Military:

1 captain
3 lieutenants including the doctors
6 sergeants
47 soldiers
30 Captives
72 Dyaks

1 Dutch radio operator

This is a total of 195 men which are with us for the period of the expedition.
July 1, 1938. Hollandia.

443 traps - 0

This morning I cleaned up about the room putting a number of things in order. This afternoon went on a long hunt, up the stream northwest of the Hooglands house for about 2 or 3 kilometers, then up the steep rocky hill slope, to the east, to the ridge, followed the ridge for 2 or 3 kilometers northward, then back along the ridge to Hollandia. This evening just before dark I went returned to the bats line of flight. (See species notes for *Hipposideros*).

Today the fifth flight to the Idenburg with men and supplies was completed. The quickest trip from Hollandia to the Idenburg was 56 minutes, it averages about one hour. It takes from 40 minutes to an hour to unload. According to their reports they have a good dry camp near a small stream. The route between the seaplane post (a lake near the river) and the camp is through forest swamps for a distance of about 40 minutes.

Capt. Teerink said that he had found a house just recently destroyed by fire, a good track leading toward the mountains, and some spears, placed along the track.

Tomorrow morning the Guba is scheduled to leave for Port Moresby. It will return in two or three days.

July 2, 1938. Hollandia.

443 traps - 0.

Yesterday evening two Dorcopsis were brought in by natives.

In camp this morning. This afternoon hunted in the cut over forest northeast of Hollandia. No luck. This evening followed the line of bat flight again. Took one specimen (*Hipposideros*) along the line.

443 traps - 1 Rattus

This morning being Sunday we took a trip; something like the postman's day off. This, however, was in our new acquired motor boat, to Pim and then on to Mr. Keen's plantation. From him we purchased two half-grown Dendrolagus which I shall attempt to keep alive for studying. A life history study comparing Dendrolagus, Phalanger and Dorcopsis would prove very interesting.

This morning an adult Phalanger was brought in. It will be prepared tomorrow.

This evening from 8-10 I spent hunting in the jungle northeast of Hollandia. The boys saw a live Hipposideros in the grass which they caught. I also saw a Melomys crawling about the thick undergrowth. It was about meters off the ground running along small limbs and now and again hesitating to look around. When disturbed it caught the thick undergrowth and grass for escape. The characters that led me to put it in Melomys rather than Rattus was the soft whitish fur of the belly and the plump shape. I believe that it is the species commonly taken in the traps in this vicinity. I also saw three or more large fruit bats hanging near the top of a tall tree. This tree or a neighboring one contained numbers of small (\(\frac{3}{8}\)"") blue fruits. I presume that the bats were feeding on these fruits for at times it sounded almost like rain from the husks seeds and fruits that came down presumably as the result of their feeding.


443 traps - 1 Pogonomys

One Rattus was purchased from a local native. Two Phalangers were skinned today, one an adult ♂ which was brought in yesterday and the other an adult ♀.
which has been held captive for some time (see species notes).

July 5, 1938. Hollandia.

442 traps - 0.

This morning several of us took a boat trip to "Tanjin Sko". It is the peninsula that forms the east that forms the Humboldt Bay, that is, it is an extension from the mainland that partially encloses the bay. It is situated 11 km. southeast of Hollandia. Here there were large rocky cliffs of limestone that had been eaten into by the sea. One of these, the largest that we saw harbored bats in large numbers. Our shooting netted three genera—*Miniopterus*, *Dobsonia*, *Myotis* (See species notes). Returned home at noon and the rest of the day has been spent in preparing specimens. In fact I have many left to prepare as yet.

This afternoon a local Papuan brought in four *Dorcopsis*, 1 *Sus*. One of the *Dorcopsis* was brought in alive although badly mauled by dogs. If it will live in the cage it will be used for comparative life history study. (Died following day).

One of the 72 Dyaks died today. Rand gave them four sheets of iron and some cloth for the coffin. It is unfortunate that it happened but it is difficult to avoid. His death was due to pneumonia. Doctors could not save him.

July 6, 1938. Hollandia.

442 traps - 0.

The entire day was spent in preparing specimens.

Four *Dorcopsis* were brought in by natives this evening.

A *Phalanger*, snake, lizard, and frog were brought in by one of Mr. Ebeli's laborers. According to the note the *Phalanger* was taken at 600 m. on the Cyclops. The other vertebrates were probably taken at or near the same locality.
The Guba returned this afternoon from Port Moresby via Daru. It brought with it anchor, anchor chains, radios, provision (delicacies), etc. This evening there was a request from the government (Mr. Hoogland) to aid the Bantam which is stuck on a desert island some 90 miles to the west along the north coast of N. G.


442 traps - 1 Rattus. 
Purchased another Rattus from local natives.
This morning spent in preparing specimens and the afternoon in learning the intricacies of the new portable radio. This evening I went hunting with flash light. Saw several bats but that was all. Perhaps the rain had something to do with my poor luck.
This evening two Papuans came from Mr. Ebeli's with two Phalangers (1 maculatus - 1 orientalis?), 1 Echymipera and one lizard. According to the note that accompanied them the two Phalangers were taken on the Cyclops Mts., 300 m. and the Echymipera and lizard on the same mountains but at 200 m. elevation. I hope to be able to keep them alive.

July 8, 1938. Hollandia.

442 traps - 1 Melomys.
This morning developed pictures, and this afternoon prepared specimens. Mr. Ebeli sent in 3 Echymipera today. They were probably taken at or near his plantation and saw mill near Dojo at Sentani Lake.
This afternoon one of my Papuan collectors returned from Ajapo, Sentani Lake with a box full of bats. According to him they were taken 1 1/2 km. south of the campong in a cave. There are three sp. -- 1 Myotis and 2 Miniopterus. The heavy clouds and rain prevented the Guba from flying to the Idenburg until this afternoon (its sixth trip to I. River) and the same sort of
weather prevented its return to Hollandia this evening.
Three government sea planes arrived this evening.

July 9, 1938. Hollandia.

442 traps - 1 Rattus.
Spent the entire day skinning mammals.
Three *Dorcopsis* were brought in by Papuans; 1 *Phalanger*, 1 *Echymipera*
each with a young were brought in during the morning hunt of the collectors,
two *Pteropus*, one with emb., were shot yesterday evening during my nightly
hunt, 6 *Dobsonia* were brought in by Papuans from Mr. Brinkmans.
The Guba returned this morning from its sixth flight to the Idenburg bring-
ing 6apt. Teerink out. This afternoon it was pulled up the ramp for the
first time. The hill's in good condition - no barnacles, etc.
A small government vessel came in this morning and borrowed our oil drums to
attempt to float the Bantam loose. For six days now it has been stranded on
a small island.


Sunday - traps not tended (also raining).
Today was spent puttering about the house. The rain prevented my taking
a tour of the region, *xxxx* Time was spent about the new animal house watch-
ing the actions of *Phalangers* and *Dendrolagus*. Soon I shall draw up a com-
parison of their activities and behavior as much as can be determined from
caged animals.


442 traps - 1 Rattus.
One of the natives brought in 7 *Myotis* from Engros.
Today has been spent in preparing specimens and packing equipment for our trip inland.

The airplane is still on the ramp being given a 100 hr. check. It is about 102 hours of flying time to its credit since leaving San Diego, 50 of which was on the way down.

Capt. Teerink said today that there would be 26 in the party leaving from the Idenburg toward Habbema. They probably will not leave for a week or two yet. They will have to wait for the establishment of our camp at Habbema.

July 12, 1939. Hollandia.

442 traps – 1 Rattus
Another Rattus was brought in yesterday evening by a local Papuan. There were three Echymipera skinned today, two of which were brought down from Mr. Ebelie’s (near Dojo) and the other brought in by a local native, Mr. Brinkman sent in two Dobsonia and four Pteropus.
Prepared specimens today as well as started the preparation of more bait. The bait seems to be disappearing rapidly. Wonder if the boys are eating it.
A radio from Lieutenant van Arcken stated that they had been inspecting the route to Habbema from the Idenburg River and that the first ridge (1750 m. high) could be reached on a long day of travel. From this there is a good ridge leading westward north of the new lake.


392 traps – 0.
Yesterday I brought in the traps (50) set on and about the cut over grassy area to the north of Hollandia. I do not recall having taken a single specimen from the traps since they were put out. Today the remainder of the
Dyak traps (192) were taken up. They had been set south of Hollandia about the base of the lime stone cliff and in the rain forest above. These traps have yielded very little.

Yesterday evening a Pipistrellus and a Phalanger was brought in by natives who had collecting them in the immediate vicinity. The gray Phalanger brought in from Mr. Ebelies' dear Dojo died last night. A Rhinonycteris and two Dorcopsis were brought in.

The day was spent in preparing specimens and making bait for the inland collecting. Little of interest happened about camp today. The Guba is being checked and cleaned, Johanna the boat is being over hauled and collecting goes on much as usual.

The name of the Idenburg camp is to be called Bernhard in honor of Princess Julian's husband. It was his birthday that the camp was founded.

July 14, 1938. Hollandia.

200 traps - 0.

A Phalanger, Myotis, Emballonura and Sus were brought in by Papuans.

This morning I prepared specimens and this afternoon I went into the bat cave 1 km southeast of Hollandia. There I obtained 11 Hipposideros (4 sp.) and two Rhinolophus.

This morning we had the first test of the new cargo parachutes. The consist of a square piece of cloth 12 x 12 with four coils tied to the corners and the other end of the 16 ft. (?) cords attached to the cargo. There were six chutes dropped; the first cargo and chute separated and was lost in the jungle; the second and third the chute failed to unroll due to taut cord 50% waste; fourth and fith the chutes opened but one cord broke which allowed the cargo to come down rapidly, the food was not injured (canned fruit & meat); the sixth was a perfect delivery of a box of bottles. The three sacks of rice dropped two landed uninjured and the third had a swell rip which lost 1 qt. of rice.
The monthly mail boat is due tomorrow so I must close to write a
latter home.


200 traps - 0.
The natives brought in three Dorcopsis. Mr. Ebeli brought in three
Echymipera and three Petaurus from Dojo (vicinity). The latter will be
prepared in two or three days, the former prepared today. Prepared two
Phalangers which I had held in captivity for the past few days. The ♀
4392 was brought in from Sentani, the other is local. The Pogonomys
was brought in by Mr. Brinkman from his plantation near Pim. The most
interesting things prepared were the bats taken in cave 1 km. southwest of
Hollandia. There were four sp. Hipposideros and 1 sp. Rhinolophus.
The day was spent preparing specimens, packing cargo for our monthly sup-
plies inland, and checking cargo from the monthly boat.
Early this morning (about 5.30) the Guba with its crew took off for Habbema
Lake. It is the first time that this or any other plane has to my knowledge
landed at an elevation of 11,000 ft. It reached the lake in 1 and 10 minutes
circled about and landed. They put out the base, selected a possible camp
site, landed some oil and gasoline, and returned. Their flight out took
one hour and 11 minutes. Dick reported after he landed here that there were
numerous runways through the grass that had probably been made by mammals.
This afternoon the KPM arrived bringing with it the monthly mail and the
unusual activity to this little village.
This evening the four Dyak collectors went hunting with flash light. They
returned with an adult ♀ Echymipera and its young.

200 traps - 0.

The Echymipera and young were shot last night by my Dyak collectors while out, hunting with flash light. The *Myotis, Hipposideros, Dorcopsis*, and *Rattus* were brought in by natives. The *Petaurus* was brought in by natives two days ago by Mr. Ebeli from the vicinity of his home near Sentani Lake.

Today has been spent preparing specimens and packing equipment for our trip inland.

July 17, 1938. Hollandia.

The 200 traps were taken in yesterday.

A *Dorcopsis* was brought in yesterday evening and prepared today. There was also a large number of *Hipposideros* (2 sp.) brought in today.

This morning I prepared a few specimens but most of the day was devoted to the packing and checking of equipment for the inland party. I leave on the 19th for Habbema Lake with the first ship load of men and equipment.

July 18, 1938. Hollandia.

Prepared a large series of bats this morning and this afternoon finished packing equipment for tomorrow's flight to Habbema Lake. This afternoon I also spent some time in the cage of the *Dendrolagus* recording life history notes.


This morning at 5.53 the Guba left Humboldt Bay, with cargo—food—passengers, for Habbema. It is the first flight in carrying the inland party to its highest base. The cargo contained provisions for two months for landed party, equipment to start preparation of the base camp, lumber for pier,
radio equipment, etc. The crew which landed, other than the plane crew (5), consisted of Captain Teerink, 1 sergeant, four soldiers, Amat, my cook and myself. We landed on the lake at 7.15 and within 15 minutes we were discharging cargo which took about one hour. After that the plane crew put up a "damn good" pier; Capt. Teerink selected a camp site and the soldiers prepared their quarters. Both with the aid and assistance of others, put up the portable radio; and Archbold supervised the erection of a tent. This tent is to be my radio shack and sleeping quarters. It is not complete as yet so we are sleeping on the wet ground with a heavy tarp between us.

This afternoon Both and I took a look about the region to the north and east of camp. Just a leisurely stroll picking "posies" for Brass.

We have been having meals out on the Guba and tonight topped the works when Russ prepared canned beef that really didn't taste like that canned junk at all. It was really OK.

At 7.30 it began to rain. Capt. Teerink returning from the Guba through what seemed to me a particularly heavy squall just went for —. It is now quarter after eight and is still raining but I am warmly tucked in bed so good night.


After the 6.30 radio contact we went aboard the Guba for breakfast and a good one it was. Another Rogers-Brown culinary triumph. After breakfast we (Teerink and myself) returned to camp and left the plane crew aboard making preparations for their return. At about 8.00 the Guba left through the haze covering the lake and disappeared around a point. At the next minute it was in the air above the hills south of camp heading toward the base. Another successful attempt at take off. It could hardly be called an attempt when watch the apparent ease of the take off.
Our (Teerink & myself) days work today consisted of completing the construction of my sleeping tent. Yesterday we pitched the tent itself and today we put in the floor. It consisted in putting in uprights to get the floor off the ground 18 to 20 inches three stringers, a solid floor of Libocedrus poles, and a thick (4"-6") mat of the conifer bows.

Our work (at 9:00) was broken this morning by a series of coyote like howls. Shortly afterwards we saw 40 men and a boy coming across a grassy clearing across the lake to the west. They were walking along the trail which passes along the north edge of the lake. This manner of progression was not one of hostility but rather one of inquiry, taking every opportunity to keep with in sight of us. They carried bows and arrows in left hand horizontally over their heads and what appeared to be another singed arrow in the right hand.

This party of four men and one boy (8-12 years) came along the trail to within 200 yards of camp and there stopped, set their arrows aside and built a fire which they continually put green Libocedrus boughs on. This made a heavy smoke screen. All this was done on a small ridge in plain view of camp.

Here they stayed for about an hour making occasional calls but mainly watching our activities. About 10:00 several groups of natives coming across the same open grass like edge. They followed the trail of their predecessors, passed the little house south of the lake where they built a smoking fire and on to join the four men and a boy. Soon after meeting they proceeded at a quick pace along the trail which passes over the saddle within 100 yd. of camp and through the grassy valley to the north of Habbema. As they passed along the trail I counted 14 in their party. Most of them were carrying a small pack either on their heads or in a back sack with a string about the head. I assume that they were women although I am not definitely sure. On looking at the men while standing about their smoke fire they appeared to wear little more than a penis gourd and a few ornaments. Some quarter of an hour after the group passed through the saddle, we (Capt. Teerink, five
soldiers, Amat the cook) went over the ridge to watch the retreating party. They were nearly a mile away. On calling to them they stopped, looked about and then went hastily into the thinly forested hills to the north of there. As we returned they were laboring up the hill slope.


This morning at 5.30 had a schedule with A but was unable to contact. Tried for one hour steady and again for fifteen minutes from seven on. At 7.30 had successful contact as well as at 10.00 AM and 5.30 PM. It has been raining a light steady rain since 3.00 AM. This incessant rain has prevented the soldiers from working as well as ourselves. The soldiers have been huddling about the fire in front of their shelter all day. This morning we too sat in our tent hoping the rain would clear. By 1.30 we became disgusted with the weather so Capt. and I went out rain or no rain. We took the boat across the lake to the west and followed along the trail from which we had seen the Papuans coming from on the following day. It goes in a general southwesterly direction for the more or less two miles that we followed it. We were interested in signs of human habitation and this is what we found. Two hunting shelters, one of which was built of logs. It was a lean to affair with ridge pole (5-6 ft off ground) supported by a tree and a forked pole. Against this ridge pile, there was placed 10-15 posts. There had been little attempt to chink the legs up. A fire had been built in the middle of the small room and a few bits of grasses laid on the shelter side which had probably served as a sleeping mat. The other house, and more recently built on, was made with a peaked roof. The ridge (about six inches of ground) was supported by two forked sticks. The four corners were likewise held up with forked sticks. This supported roof was made of sticks, boughs, grass, moss, etc. It was hardly what one might call waterproof but it was far superior to the
lean to. The entire room covered a space about 9' x 7'. There were no walls or attempt to brush in the side of the building. Perhaps this was not necessary because of the protected brushy spot in which it was built. In the middle of the room was a well used fire place and about which was strewn freshly shredded grasses or reeds. These had been used as a sleeping mat. The logs or larger sticks used in this building, as in the other, had been cut with a blunt instrument, such as a stone axe. Along the trail there were numerous old camp fires. We found a bundle of bark which had been used to carry fire, the handle of a stone axe, several pandanus leaves which had been used for rapping, a pig rib, portion of a burnt young pig skeleton, a basket-like bundle of twigs and grasses. This latter was curious. It was a pile of litter above the ground which had been made some time ago. In this litter there was however several balls of grass which had been recently added to the mass. In the mass there were several broken reed arrow shafts, only one of which had a point and that two small shafts of what appeared to be a fishing arrow. The trail over which we passed was well worn apparently being one that has been in use for many years and in continuous use. The human foot prints in the trail belonged to people with relatively small feet. There were, also pig-like tracks along the trail. They were apparently small animals accompanying the Papuans.


The weather began clearing this morning and by the time the Guba arrived (7.30 about) there was a blue sky and few light clouds as contrasted with the dull rainy yesterday. Cargo was unloaded and brought into camp. After the plane left Mr. Brass, Cap., and myself searched about this region for a suitable camp site for the Europeans. A good one was found northeast of the
soldiers camp about fifty yards. Here we tentatively arranged the location of the five tents, the cook tent and the cook living quarters. With the aid of the soldiers the cooks tent and shack is nearly completion. This afternoon we took a short walk about the ridge to the east of camp.


The fog over the lake prevented the plane coming in at its usual time 7.30. It was forced to circle about for 20-30 minutes before the weather cleared sufficiently to make a landing on the lake. On landing they taxied up to the buoy, made fast a bow line, Brass rowed out, attached the stern line and returned to shore with end of rope and with the aid of the soldiers pulling the Guba was brought in tail first alongside the dock. The plane is unloaded within half an hour, a cup of coffee, a few jokes and its off again. The ease and rapidity with which the cargo is discharged is almost miraculous efficiency plus. After the plane left we returned to the making of camp. Brass's and Capt. Teerink tents were put up; the cooks tent finished; stores moved into the kitchen. The first of the Dyaks came in this morning and they have been busy building themselves a shelter of atap and native material. The soldiers and captives have made their shelters larger to house the larger number of men. They have also been at work on the military godown, the roof is on and the floor is partially completed.

Today has been a beautiful day, sunny and bright all day with the exception of the early morning lake fog. If days like this will continue, collecting here will be a real pleasure.

July 24, 1938. Habbema Lake.

This morning was beautifully clear, not a cloud even the early morning lake fog was not present. The plane "Guba" arrived, unloaded its cargo
The United Nations has a policy of neutrality and non-partisanship in its relations with all governments and peoples. It does not take sides in or mediate between disputes of a political nature. However, it does provide a forum for the expression of views and the exchange of information on matters of common concern.

The League of Nations, on the other hand, was a diplomatic organization that aimed to prevent war through collective security. It was established after World War I and was based in Geneva, Switzerland. The League had its own armed forces, known as the International Army, which was under the command of the Secretary-General of the League. The League's activities included the mediation of international disputes, the promotion of disarmament, and the encouragement of economic cooperation.

The United Nations was established in 1945 after World War II as a result of the efforts of the United Nations Conference on International Organization. The UN Charter was signed by 51 countries on June 26, 1945, and entered into force on October 24, 1945, after 38 of the signatories had ratified it. The UN has 193 member states and is headquartered in New York City.

The UN has six principal organs: the General Assembly, the Security Council, the Economic and Social Council, the International Court of Justice, the Trusteeship Council, and the Secretariat. The Security Council is responsible for maintaining international peace and security, while the General Assembly serves as a forum for member states to express their views and take decisions on a wide range of issues.

The UN plays a critical role in addressing global challenges such as climate change, poverty, health, and human rights. It also provides a platform for member states to negotiate and implement international agreements and conventions.

In conclusion, while the League of Nations had a more limited role in international relations compared to the United Nations, it was a significant precursor to the modern global governance system. The UN continues to work towards promoting peace, security, and development, while also responding to new challenges in the 21st century.
and returned. It is the arrival of the plane, a commonplace thing now expected rather than anticipated. Today my activities consisted in the shifting of my tent from its previously low wet locality to the higher, drier camp of the Europeans. A new aerial was put up and they had it lengthened to reach my tent. This afternoon (3:30) it began to rain and so little work was done. I straightened things within my tent and practised code. The rain makes one feel lazy in spite of the work before me. Last night a native camp fire could be seen across the lake. This morning a wisp of smoke came forth and this afternoon a good deal of smoke could be seen. About 3:00 this afternoon two natives were seen passing along the trail near camp. They went through the saddle and into the grass valley to the east of us. I wonder where they are from, where they go, and what prompts them to travel.


This morning the plane came and left as usual. After its departure we began the building of the dining room. It consists of a large fly, a small fly covering one end, atop the other, the low walls brushed in with cedar boughs, a floor in one half and an open fire in the center of the other. It is really a very comfortable eating and lounging spot in spite of the smoke. We also put a small shelter for the thermometers. Brass is going to keep temperature records.

This afternoon I set out fifty rat traps and two steel traps. The line runs southwest from camp, across a little gully, up to the ridge and south up the ridge for a short distance and then into another gully and onto the ridge. Here the line was broken, the remaining 20 more or less traps set along the lake edge. Those traps set along the first portion of the line (about 30 traps) are in runways or at the entrances of burrows in the brushy sphagum
and account of the present state of the science and its application to the solution of practical problems. This account will be followed by a discussion of the future outlook of the science and its significance for the development of industries of the future.

In addition to the main text, the document contains a number of references and citations, which provide additional information and support the arguments presented. The references are organized in a clear and logical manner, making it easy for readers to locate and follow up on the sources of information presented. Overall, the document is a comprehensive and well-researched account of the current state of the science and its potential for future development.
of different degrees of moisture. The traps along the beach or rather lake edge were set in grassy runways or bordering mossy thickets. The two steel traps were set in large runways in or along the edges of these grassy thickets.

This afternoon one of the convicts brought in two small beasts which I take to be Pseudocheirus. I will not be sure of their identification until I see their teeth. He showed me the exact spot from which they were taken. It was a moss clump about the base of a Libocedrus in which there were numerous burrows. These burrows were not dry nor were there signs of dung about which might indicate that they were in constant use. According to the story of the convict, he went to cut the tree down, about which this sphagnum clumped, and the "Mama" ran away through the brush and sphagnum. On digging into the clump from which she came he found the two young(?). They were near the top of the clump, the drier portion exposed to the sun.

July 26, 1938. Habbema Lake.

50 rat traps, two steel traps — 5 *Stenomys*, 1 *Pogonomys*.

The plane came in this morning as usual with its load of cargo and passengers. After a quick discharge of its cargo it left for Wewah in the Mandated Territory. After the plane left we concluded our breakfast after which I accompanied by Brass, Teerink, Huls and one of my collectors went the rounds of the traps. (for results see above). The rest of the morning and early part of the afternoon was spent in preparing these specimens. This afternoon, I and my collector set out 50 rat traps and 1 steel trap. These traps were set south southeast of yesterday's line. We began at the top of the low hill south of camp and continued in a general SSE direction down a small spur, through a gap up another ridge to the top of another low hill and part way down a small steep spur heading to the north shore of the lake. This region was selected because of its comparatively dry nature in hopes of catching more Pogonomys and bandicoots.
Although fairly well drained there is still sphagnum clumps about the brush and trees about and between which are small openings of dry lichen or moss covered ground. This evening there is the routine radio schedule and a much looked forward to dinner (as per usual).


100 rat traps, 3 steel traps - 6 *Stenomys*.

Today the plane arrived about 8.30 AM with its seventh load of freight for Habbema Lake. There are this evening 68 men here with provisions for two or more months. This morning after the Guba left I prepared the specimens taken this morning. This afternoon was given to odd jobs about camp, roping in the cooks tent, *sticking* staking my own tent, helping with the flue in dining room, building cage for *Pseudocheirus*, etc.

This morning the Dr. and Capt. made a patrol through the grass valley north of Habbema, and into the ridge to the north of the valley. They reported having seen five natives, several houses, and a good trail leading to the eastward.

Our camp is nearly completed, a tent each for Rand, Brass and myself and a store tent, the cooks tent with a fly in front for cooking, a fly each for dining quarters, preparation quarters and for our Dyak collectors. The military camp is large with separate quarters for soldiers, convicts, NCO, and Dyaks. In addition they have mess quarters for the "non coms", a large godown, a fly pole, guards quarters, WC, etc.


100 rat traps, three steel traps -- 1 *Stenomys*, 3 birds.

Today the Guba made its eight cargo flight to Habbema. Today has been spent about camp doing odd jobs such as building a cage for the *Pseudocheirus* developing pictures, etc. Our camp now is quite complete with the exception
of a few sundry jobs. I am now waiting for the remainder of my equipment and the two Dyak collectors. With their arrival I shall be able to start work in earnest.


100 rat traps, 3 steel traps — 1 *Stenomys*, 1 grouse.
The grouse was taken in a steel trap set in a trail through the grass thicket along the edge of the lake.
The Guba came this morning with its ninth load of cargo and passengers.
This morning was spent working about camp. This afternoon I set out 50 more rat traps starting from the far end of the line running along the ridge making a turn to the east and then proceeding over several ridges in a northeast direction. Late afternoon I spent in helping Mr. Ebeli set up his radio.

July 30, 1938. Habbema Lake.

150 rat traps, 3 steel traps — 2 *Stenomys*, 1 Bird.
This morning was spent about camp. The most important thing that happened being the first contact with the natives. Rand, Brass, Teerink, Huls, two soldiers and a Dyak participated in the contact. About 9.30 they, the natives, were heard calling "coyote fashion" from the ridge east of the low ridge east of camp. According to those participating in the contact the natives came cautiously across the grass valley toward camp. A Dyak was sent out to meet them, and according to instructions coaxed them to the remainder of the party. Hands were shaken around. The brief contact of five minutes was spent in trying to determine the region from which they came. "Be Nen a wa" was the name from which they came. The "Wa" being the name of the river. On mentioning the name above the old man and leader pointed in the region of the Grand Valley. Without warning the group of eleven men turned without warning, trot-
ted out of arrow shot and then walked across the valley. They clothing consisted of a penis gourd. Some of them carried bows and arrows and there were several stone adzes in the group. They wore few ornaments, if any, their hair was matted, and they wore a black paint on their faces. Rand finished by saying it was a good contact. The arrow and bow were carried in same hand. The name they gave to the river, pointing in the north "Ba Len a wa".

This afternoon Rand, Brass and myself explored the eastern half of the lake shore. We rowed a boat from place to place about the shore by boat getting out and looking the country over for mammal signs, birds, etc. The northern shore of the lake is bordered by a thin border of grass which gives way to Libocedrus, rhododendron and mosses. In some places the grasses are entirely displaced by the three dominant plant types.

The eastern shore of the lake, to either side of the inlet broadly, is marshy. This is an extension area here of lowland covered with grasses, sedges and other grass-like plants. For the most part these grass-like plants are thick and matted at or above the ground surface and often impregnated with mosses. There is a small meandering stream passing through the broad grassy valley and emptying into the lake (the inlet). Along the stream are a few scattered tree ferns. The south or southeast side of the lake has a grass-shrub moss border of 10-20 ft wide which gives way to a low, poorly drained herbaceous grass vegetation. As soon as one leaves the lake border he notices the change from dense -- vegetation to the low poor vegetation. The difference is probably due to the tempering influence of the lake on the immediate surroundings. South and southeast through the low herbaceous-grass-land, the land raises and there are 10 or more knolls which are probably due to the harder limestone formation beneath them. The vegetation of these knolls consisted of mosses, and low wind blown shrubs on the north side. On the south side a vegetation much like that of the northern lake
shore or rather the hills or forest slopes above the lake shore with
the exception it was much less extensive being limited in most cases to
20-30 square yards. At the south central portion of the lake there is
a small weeded peninsula extending for about 500 yards into the lake. Its
vegetation is much like the other Libocedrus forested region. The most
interesting thing about it is that we found the 1929 1920 camp of Cramer
and van Arkel. They were the first and only other party to visit this
region. They had built a line of shelters some 60 or 70 ft long with a small log
and a pole and bark roof. Sketch of end view:

Note the roof had fallen down structure in bad state of dilapidation).
This type of shelter is the same as is used here by our soldiers and Dyaks.
There was also a stack of fire wood and old fire places about.
It was not a Papuan camp as shown by the stub ax cut trees, hewed clean,
construction of camp, and stacked fire wood. From this — we returned
across the lake to the bay and camp.

July 31, 1938. Lake Habbema.

150 rat traps, 3 steel traps — 2 Stenomys (different species), 1 Phascogale.
This morning the eleventh and last of the cargo flights to Habbema was
completed. The Guba has brought in some 60,000 lb. of store, men and
equipment to Habbema. The personnel consists of approximately 110 men.
The Guba was turned facing shore and every available man in camp was
placed on the wings for a photograph. I hope that it turns out to be as
good and as profitable as the last similar New Guinea picture of the pre-
vious expedition.
The most interesting thing in the mornings happenings was the arrival of
two friendly natives. They came within 50 feet of the edge of our camp,
squatted on the ground and proceeded to talk to us in their own sign language. All that I could decipher from such a manner of communication was that these two savages were going back to their village, pointing in the direction of the Grand Valley, and with 2\(\frac{1}{2}\) days would return with many men and pigs. The only clothing that these two wore was a penis gourd. In addition they had armlets, bracelets, and one wore a coarse mesh bag-like thing over his hair. They both carried a bow and arrows as well as a woven mesh log under their arm. It was in this bag that they carried their personal belongings. Both of them had smeared themselves with charcoal — which gave their chocolate brown bodies a black dirty look. Both natives were friendly especially the elder of the two, the spokesman. He was always grinning and it often broke into a laugh as we laughed. The other a solemn younger chap never spoke to us but kept his keen shifty eyes on our activities. He appeared to be the body guard of the elder man. We offered them gifts of tobacco, matches, salt, cowrie shells, salt, dried fish, a steel axe. These they returned to us before leaving apparently not wishing to be under any obligation. The elder of the two had an old steel axe which he highly prized. This was the only trophy which he showed to us.

This evening the plane crew, Rogers, Archbold, Booth and Brown, stayed in for the opening of camp. (official opening of camp). After photograph of the expedition members on top of the plane, the soldiers, Dyaks, captives, scientists, etc. gathered beneath the newly erected flag pole. Archbold made the opening speech, followed by a speech in English to those of us that understood by Teerink and another to the soldiers in Malay. On completing he gave Archbold the honor of erecting the Dutch flag over camp. After that the Europeans drank to the health of the Queen, etc. with Teerink's special wine.
August 1st, Lake Habbema

150 rat traps, 3 steel traps—2 *Stenomys*

This morning the Guba left for Hollandia. Its next scheduled flight to our lake if September 2nd. It left me with the feeling of being isolated from the outside world. Capt. Teerink with his party of 47 men also left this morning for the Grand Valley. There were 20 Dyaks, 14 soldiers and officers, Mr. Ebeli and convicts. He is to open up the part of the trail between Habbema and the new lake. The party left in good spirits though I couldn't help feeling a bit sorry for the Dyaks carrying a load of 30 kg. or more. After they were packed and ready to leave, the soldiers 2 lb. axes to each in addition to their already excessive loads. According to the contracts they were to carry a 20 kilo load but the Capt. said it was impossible to travel so and gave the over load as an extra precaution. One thing I cannot quite feature is the radio battery packed at the top of the load, the place where it is most easily broken and where, if acid spills it ruins the rest of the cargo. "These Dutch, they are a funny race".

This morning I set out 197 more traps along the grassy vegetation of the lake shore. The line begins near the dock below camp and runs around the north end of the bay to the middle edge of the grassy valley on the western shore of the bay. 90% of the traps are set in or boarding the marginal grass of the lake shore; the other 10% are set in the brush mass association where it borders the lake. Traps with no exceptions are baited with a mixture of dried fish, oatmeal, honey and peanuts and placed in the runways to be found in this region.

This afternoon I set out 75 traps (rat) along the stream that flows along in the upper western part of the grass valley just east of camp. They were set along in the heavier grassy margins of the stream where there are scattered low bush clumps and tree ferns. Prior to the setting of these traps the line which I first set out was collected with the exception of three traps which were missing.

This evening it has been raining, one of the hardest rains since we have been here. This afternoon a group of some 10 or 15 natives made a detour above camp and then
along the trail leading about the bay and off towards the west. I saw them on returning from setting traps. I beckoned to them but they expressed their desire to continue along their way and I was to go along mine. They were a shy nervous group.

August 2nd, Lake Habbema.

197 mouse traps, 175 rat traps, 1 steel trap—15 *Stenomys*, 2 *Pogonomys*, 5 *Rattus* 2 birds.

This morning I prepared specimens. This afternoon I set out the remainder of my rat traps, a continuation of the line up the grass valley stream east of camp. There are now out 197 traps of this type, 97 of which are along the grass and shale borders of this small stream. The remainder of the afternoon was spent in preparing specimens.

Several groups of natives were heard today, shouting in their characteristic like fashion, but none came into camp.

Yesterday two soldiers and one Dyak returned from Teerink's party with an injured convict. The convict, Neon, one of Teerink's personal carriers, slipped and fell, hitting his groin on a rock. He was brought into camp on a stretcher and attended by the doctor. A report today from the doctor said he is not seriously injured and is recovering.

August 3rd, Lake Habbema

197 mouse traps, 197 rat traps, 1 steel trap—11 *Stenomys*, 1 *Pogonomys*, 3 *Rattus* (4560 was taken yesterday) 2 birds.

This morning I prepared specimens. This afternoon I went out in search of different types of habitat in which to set my traps.

I followed along the spur from camp northward between the lake and grassy valley. This spur continues in a northerly direction for about 3 kilometers when it joins with the main ridge which extends ESE to the Grand Valley. From the height of this ridge, I could see the Grand Valley and one of the upper tributary valleys.
The closest settlement was about 4 miles distant, air line. A group of two or three houses could be seen and gardens with their crop rows. At the top of the ridge there is a trail leading down into the valley to the north (drains to G.V.) and along the top of the ridge to the west.

This evening one of the Dyaks came into camp with a live animal which appears to be a *Eudormicia*. It is an agile little creature moving about its cage in a nervous manner. Notes will be made on it later.

August 4th, Lake Habbema.

197 mouse traps, 197 rat traps, 1 steel trap--8 *Stenomys*, 1 *Rattus*, 1 *Hydromys*, 2 birds

This morning I prepared specimens. This afternoon made *amateur* notes on my caged animals. *Eudomisia* and *Pseudocheirus*. This day has been a difficult one for collecting, few specimens and unpleasant rainy weather.

August 5th, Lake Habbema.

197 mouse traps, 197 rat traps, 1 steel trap--6 *Stenomys*, 1 *Rattus*, 1 *Phascogale*, 1 *Hydromys*

The *Eudomicia* was brought in several days ago (See notes genus)

This morning I attended traps and prepared specimens as usual. This afternoon I changed a line of traps, the 100 (95 found) which were set on the ridge SSE of camp to the region NNE of camp. The line begins at the head of the grassy valley (westernmost streamlet) through the light open forested region, into a hillside grassy slope, along border of grassy slope and brush, in low brush and mossy ridges, through a dense high brush and moss canyon with small stream, on drier ridges and down relatively well drained canyon with grass and brush. In short the line starts from the western head of the grassy valley (NE of camp) and over the long spur (backing toward camp from north) and down the opposite slope for a short distance.
August 6th, Lake Habbema.

197 mouse traps, 191 rat traps, 1 steel trap—14 Stenomys, the Pseudocheirus was brought in alive July 25th by a native.

This morning I tended traps and prepared specimens. This early afternoon I set out 10 steel traps along the northern lake shore to the east of the bay. Here in the peaty lake shore were diggings of what appeared to be made by a semi-large animal. Most of the afternoon is rainy so that I am unable to do work as I should like. The mornings are spent in preparing specimens and the afternoons in resetting traps and when raining the latter is impossible. This afternoon at 12.30 1 sergeant, 4 soldiers, 2 convicts and 1 Dyak returned from Teerink's party in the Grand Valley.

The most important thing is probably the activity of Guba today. It made its first parachute delivery to Captain Teerink and landed successfully on the new lake to deliver supplies to Van Arcken. He was there with his entire party in good spirits and good health.

August 7th, Lake Habbema.

197 mouse traps, 191 rat traps, 11 steel traps—13 Stenomys, 1 Rattus, 1 Phascogale. The Pseudocheirus was brought in alive July 25th by a native.

This morning and early afternoon I prepared specimens. The late afternoon I rested for today is Sunday.

August 8th, Lake Habbema

197 mouse traps, 191 rat traps, 11 steel traps—6 Stenomys, 1 Pogonomys, 1 Pseudo-hydromys, 2 Phascogale.

This morning I attended traps and prepared specimens. This afternoon I set out 12 steel traps along the runways in heavy mossy forest. The exact locality is best shown on the small accompanying map.

Sketch

They are in or near a heavy forest 1 kilometer NE of camp at the head of a grassy bog of the upper Grassy valley. 8 traps were set in the heavy mossy forest itself,
the other 4 on the edge of the heavy grassy bog below the forest.

Augts 9th, Lake Habbema

197 mouse traps, 191 rat traps, 23 steel traps—8 Stenomys, 1 Rattus, the Phascogale was shot by Rand.

This morning I attended traps and prepared specimens. This afternoon reset 99 rat traps. They were taken from the grassy valley northeast of camp and set along the lake shore edge, beginning in the middle (edge of lake) of the grassy valley on the western shore of the bog and northwest along the lake shore to a point about half way to the outlet. The traps were set in runways along the heavier grass and rushes about the lake edge.

SketchMap.

August 10th, Lake Habbema

197 mouse traps, 190 rat traps, 23 steel traps—8 Stenomys, 2 Rattus, 1 Pseudocheirus. The skull of the Pseudocheirus was brought in yesterday by Dr. Rand. 1 bird.

This morning I prepared specimens. This afternoon I went across the bay of the lake and into the heavier forest there. The purpose of this excursion was to look for suitable trapping locality. The forest margin as well as the mossy forest itself should yield things new and interesting.

This evening I went out hunting with flashlight. With the prow we followed along the eastern bay shore and northeast lake shore to one third the distance to the inlet. I saw one Rattus and one Stenomys along the lake shore. It was a clear cold night with steam coming off the lake and a full moon above. It is not the best type of night for this type of hunting.

August 11th, Lake Habbema

197 mouse traps, 190 rat traps, 23 steel traps—3 Stenomys, 1 Rattus, 2 Phascogales, 3 birds
This morning prepared specimens and attended traps. An adult *Eudomicia* was brought in by one of the Dyaks (See genus notes). This afternoon I reset the mouse traps, changing them from the northern bay shore to the heavier forest to the west of the bay. In this rather localized forest there is a heavy high scrub growth through which are scattered a few tall trees. Moss covers the ground, the trunks and lower limbs of the brush, with the exception of a few spots where for some reason ground moss does not seem to flourish as well. The general route of the trap line is up the ridge in a northerly direction, swinging to the westward down the slope, then along the border of the forest and finally out into the narrow grassy valley with tree ferns.

August 12th, Lake Habbema

185 mouse traps, 190 rat traps, 23 steel traps—15 *Stenomys* (one kept alive), 1 *Rattus*, 2 *Pogonomys*, 1 *Hydromys*, 1 *Pseudocheirus*, 1 bird, the *Eudomicia* was brought in yesterday by a Dyak wood cutter.

Today was spent in preparing specimens and taking care of them. Set one steel trap out in the forest along the mouse trap line. Brought in the 9 steel traps set along the northeast lake shore. This evening I went hunting along the crest of the ridge which runs north of camp. Travelled along slowly for a distance of about 1 kilometer and returned. Saw no animals. The two Dyaks were also out hunting by flashlight in the grassy valley. They reported having seen one "likus" (rat)

August 13th, Lake Habbema


This morning radio schedule interrupted my regular mornings work of attending traps and preparing specimens. I did manage to accomplish something, measured specimens and checked the steel traps (13) set north end of camp. This afternoon I set out 9 steel traps, 2 on the top of stakes of hawks and 7 along the line of small traps through the moss forest. They were set in the runways which appeared
to be made by some large animal.

August 14th, Lake Habbema


This morning prepared specimens. This afternoon, being rainy and Sunday, gave the collectors a rest. I went across the bay with Rand to collect a bird-of-paradise nest and at the same time to look over the lower edge of the forest in that vicinity as a possible locality for a trap line.

August 15th, Lake Habbema

185 mouse traps, 190 rat traps, 22 steel traps—3 *Rattus*, 5 *Stenomys*, 1 *bird*.

This morning at & Rand, Brass, Tox, and Huls went in search of the September collecting locality on the northeast slope of Mt. Wilhelmina. With them went a sergeant, 3 soldiers, 1 cook, 3 captives, 10 Dyaks and 6 collectors. They plan on returning tomorrow.

This morning I prepared specimens as usual. This afternoon spent in and about the grassy valley following *Stenomys* runways and looking for the nests. This evening we went hunting by flashlight. Saw nothing.

This afternoon the two Dyaks (collectors) brought in 2 *Eudomicia* which they had caught during this afternoon hunt through the open forest SE of camp.

August 16th, Lake Habbema

185 mouse traps, 190 rat traps, 22 steel traps—2 *Stenomys*, 1 *Hydromys*, 1 *bird*.

The *Eudomicia* were caught yesterday by my two Dyak collectors.

This morning I prepared specimens. The two Dyaks went hunting but returned without having seen a mammal. This afternoon I went to the outlet of the lake. Spent several hours in this vicinity looking for suitable spot to set my traps. It would seem that there is suitable spot for 100 rat traps along the marshy border and low brushy hill slope. The two Dyaks returned with small falcon from their
afternoon looking for mammals.

August 17th, Lake Habbema

185 mouse traps, 190 rat traps, 22 steel traps—1 *Dasyurus*, 2 *Stenomys*, 2 birds.

This morning prepared the *Dasyurus* and collected the line of 95 rat traps and 1 steel trap which were set from the head of the grassy valley over the spur to the west (north of camp). This afternoon we reset the traps beginning along the south side of the outlet stream and following it along for ½ kilometer setting traps along the high grass and rocks which border this sluggish stream. Half of the traps were set along this stream, the other half along the hill slope to the south of the stream. The line passes through the following types of habitat: thick grass; open brush with moss and grass undergrowth; thick brush and shrub trees in a moist canyon, moss abundant; over a dry brushy ridge with moss and grass; down a dry brushy wash with scattered brush clumps, grass thickets and moss about brushy areas.

The patrol of 25 men including Rand, Brass, Tox, Huls, etc., did not return yesterday as per schedule so this morning another patrol of 3 soldiers, 1 Dyak and 2 convicts was sent in search and to deliver food to them. This afternoon both parties returned, having successfully located a satisfactory collecting camp on the NNE hrs slope of Mt. Wilhelmina top. It is some 8 km distant from our camp here. They brought back with them a portion of a *Mellomys* skull and reported having seen runways of others and also large runways of animals which appear to be large rats.

August 18th, Lake Habbema


This morning my daily routine of collecting was disturbed by radio schedules and the arrival of the plane (Guba) with half of next month’s provisions and 2 passengers (1 Dyak, 1 Convict). Late morning prepared a few specimens and this afternoon spent the entire time in preparation and packing.
August 19th, Lake Habbema

185 mouse traps, 190 rat traps, 21 steel traps—1 Pogonomys, 1 Phascogale, 1 Hydromys, 10 Stenomys.

This morning I tended traps and prepared specimens. This afternoon reset the mouse traps, removing them from the forest west of the bay to along the northwest lake shore. The line begins about midway between the bay point and the outlet and continues west along the lake margin to the outlet. About 150 of the total were set, the remainder will be set tomorrow.

The Guba with its crew remained here last night. This morning and early afternoon they made two flights to the lower river of the Grand Valley, bringing back Teeink and party of about 34 soldiers, Dyaks, captives, etc. They all returned in good spirits and good health.

August 20th, Lake Habbema

150 mouse traps, 190 rat traps, 21 steel traps—1 Phascogale, 2 Hydromys, 2 Pogonomys (one kept alive), 2 Pseudocheirus, 10 Stenomys.

This morning tended traps and prepared specimens. This afternoon set out the remainder of the 192 traps along the north side of the outlet stream, 1/2 kilometer down from the mouth. About 25 of the traps were set along the border of the grass and brush some 50-100 yards north of the stream.

This morning (10.00) the Guba left for the new lake where Van Arcken and party waited for its arrival. From the lake the party was transported to Bernhard Camp (18 minutes of flight). This concludes the opening of the trail through from the Idenburg to Habbema, a distance estimated to be 16 days of travel. A radio from Van Arcken today stated that it was three days from meeting place in Grand Valley to new lake.

August 21st, Lake Habbema

192 mouse traps, 190 rat traps, 21 steel traps—2 Hydromys, 2 Rattus, 1 Pogonomys, (other specimen brought in yesterday), 10 Stenomys, 2 Pseudocheirus.

This morning and early afternoon tended traps and prepared specimens. Late after-
noon went across bay and looked about a grass fire which has been burning for the past three or four hours. The fire is in the upper part of the valley, burning along the heavy grass-tree fern edge of the small stream and at the upper edge of the grass where it borders the outer forest. There were no mammals and birds about the fire. I made several trails in front of the fire to see if the animal life was moving before it but apparently it was not for no rats etc. were seen although there were numerous runways in the region.

August 22nd, Lake Habbema

192 mouse traps, 190 rat traps, 21 steel traps—3 Phascogale, 2 Hydromys, 1 Pogonomys, (1 Pseudocheirus, skull only, pick up), 3 Stenomys.

This morning tended traps and prepared specimens. This afternoon reset 96 rat traps. These traps were taken up from the lake shore beginning from a point on the west central bay shore and continuing around the bay point and west along north shore to mid point between bay point and outlet. The traps were set in the mossy forest and bordering heavy brush areas. The spot of forest in which the traps are set is situated about 1 kilometer NNE of camp. (Same spot in which I had previously set 13 traps for Zaglossus, etc.). The line begins in the bottom of the gorge in a heavy mossy brush forest and continues northeast along the ridges of limestone sink holes. Throughout a heavy mossy brush forest for about 200 yards. From there went down on a thick worn slope of a large sink hole and turned in a westerly direction proceeding over the rim and on in a south east direction through heavy thick brush. Throughout the entire region there is a ground cover of moss and heavy moss cover on all lower limbs, branches, trunks and fallen trunks. The line ends on the brushy point 20 degrees west south west of its beginning.

August 23rd, Lake Habbema

195 mouse traps, 191 rat traps, 22 steel traps—3 Stenomys, 2 Phascogale, 1 Pogonmys, 1 Hydromys, 1 bird.

This morning tended traps. This afternoon reset 8 steel traps, removing them from the forest across the bay to the forest in which yesterdays rat traps were set.
Calculated the weight and carriers loads for moving to the next camp below Wilhelmina top.

<table>
<thead>
<tr>
<th>Traps</th>
<th>80 Kilos</th>
<th>4 Carriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting boxes</td>
<td>40 &quot;</td>
<td>2 &quot;</td>
</tr>
<tr>
<td>Personal</td>
<td>20 &quot;</td>
<td>1 &quot;</td>
</tr>
</tbody>
</table>

August 24th, Lake Habbema


This morning and early afternoon prepared specimens and tended traps as usual. Late afternoon went through the forest west of the bay looking for suitable trapping localities. This forest does not look as productive as far as mammals are concerned as that patch of forest NNE of camp where I now have 96 traps out.

This afternoon Tox returned with the patrol (10 men) from the forested valley NE of camp. He went down to 2500 m. and the upper edge of population. He reports enthusiastically an excellent collecting region in the mossy forest.

August 25th, Lake Habbema

195 mouse traps, 191 rat traps, 22 steel traps—5 *Stenomys*, 1 *Pogonomys*, (other specimens brought in yesterday), 1 *Rattus*, 1 *Hydromys*.

This morning tended traps and prepared specimens. This afternoon remained in camp, the rain not permitting field work.

This afternoon the camp has been humming with the first group of soldiers, Dyaks, etc. go to establish the Wilhelmina camp. Rand is going up tomorrow with the collectors and a cook and establish and arrange the camp.

August 26th, Lake Habbema

195 mouse traps, 191 rat traps, 22 steel traps—2 *Pseudocheirus* (one a juv. from
Map of Bay Region indicating trap lines

- Moose and Rat Traps
- Steele Traps
Map of Lake Habbema
indicating other trap lines

- Mouse and Rat Traps
pouch of adult ø), 1 Phascogale, 1 Rattus, 3 Stenomys.

This morning tended traps and prepared specimens. This afternoon walked along the grassy valley eastward to within ½ mile of the brink of the valley where it breaks rapidly off to the east forest canyon. The region does not change from that about the lake. The grassy valley with tree ferns along the stream and a swampy forest on the higher ground.

This morning (7.30) Rand and party left this morning to establish the Wilhelmina camp. The group consisted of the following: Dr. Rand, Capt. Teerink, 2 collectors, 1 cook, 22 Dyaks, 14 soldiers, 1 sergeant, 11 convicts. Total 53 men.

August 27th, Lake Habbema

195 mouse traps, 191 rat traps, 22 steel traps—3 Hydromys, 5 Stenomys.

This morning tended traps and prepared specimens as usual. This afternoon explored the grassy banked meandering stream below the outlet rapids. The signs (mound) were not as common as I had expected. They appeared to be Stenomys and the small Phascogale. The signs were not different so as to warrant a change of traps to that region.

This afternoon 11 natives came into camp. 5 men and 6 boys (I did not see them). They accepted gifts and gave in return a few sweet potatoes. They were very friendly, examined camp and returned to the forest. It was also reported by radio today that natives had visited the Idenburg camp, bringing pigs and cassowaries for which they received a bit of tobacco. That shows a lack of understanding or bad judgment on the part of the man in charge, Van Arcken.

August 28th, Lake Habbema

195 mouse traps, 191 rat traps, 22 steel traps—1 Pseudocheirus, 1 Phascogale, 1 Hydromys, 4 Stenomys (1 specimen not prepared)

Two sketch maps of L. Habbema

This morning prepared specimens. This afternoon remained in camp recovering from a dose of poison. Yesterday Late afternoon I partook of tea and bread as usual.
The cook, however, had made a new kind of bread which he called "grohm." Those of us eating it, Huls, Brass, Dick and myself, became ill. It was not until this morning that we heard that he had mixed derris? with the flour, 50% of each. It had been included in the can of flour "to lay out the insects" by Tox or his baker. At any rate we were all ill, not completely recovered, from a fish poison in our bread.

This afternoon two native men came within 40 feet of camp, talked and greeted us in a friendly way. They were by no means shy, indicating their desires of mirrors and mission by gesticulating in the lid of an old tin can. Yesterday the natives were given several. They were given each one which they admired greatly especially the little stand which held it upright. They indicated their pleasure by snapping their penis gourd with their finger.

August 29th, Lake Habbea.

195 mouse traps, 191 rat traps, 22 steel traps—1 Hydromys.

This morning "piddled" about camp doing odd jobs, etc. This morning 7 natives, 1 small girl, 6 men, stopped near camp. Two of the men came in. They had 3 pigs, one of which we bought for 10 cowrie shells (10 ø). It is a small pig, 20-30 lbs., but nevertheless it will give us fresh meat for supper. They were the usual type of natives with blackened greased faces, penis gourd, braided rattan arm bands, coarsely meshed hair net, small mesh bag for tobacco, etc., and bow with 8-14 arrows which made up their gear. One man carried a spear some ten feet in length of a straight piece of (1") hardwood, sharpened to more or less of a point at the end. It had a pleated braid about 14" from the end which divided the blade from the shaft. The people were in all appearances quite primitive with few personal goods except the bare essentials to their life.

This afternoon I went in search of Eudormicia through the swampy forest across the grassy valley to the NE of camp. Although many dead trees were cut or pushed over looking in hollow spots and through moss clumps, none were found. Two
empty nests were found which quite possibly belonged to such a mammal.

This morning the second group of carriers left for the Wilhelmina Camp, which included Doctor Toxopeus, his two collectors, his cook, Rand's collectors, 12 Dyaks, 6 convicts, 1 sergeant and 5 soldiers. This afternoon Captain Teerink and his party of convicts, soldiers and Dyaks returned from the same camp. Dr. Rand remained behind with his collectors, cook, 4 convicts and 2 soldiers.

August 30th, Lake Habbema.

195 mouse traps, 191 rat traps, 22 steel traps—1 Mallomys, 2 Stenomys.

This morning tended traps and prepared the giant rat. This afternoon stayed in camp because of the dull threatening weather. This afternoon 11 natives came in to camp. We purchased most of their bows and arrows which would indicate that they were not only friendly but trusting as well. Their armlets contained what appeared to be remnants of Dactylonax, Dorcopsis and some large rat.

August 31, Lake Habbema.

195 mouse traps, 194 rat traps, 22 steel traps—4 Stenomys

This morning tended traps, prepared specimens and checked in the 93 rat traps and 194 mouse traps and 2 steel traps which were brought in by my collectors from the lake shore and about the outlet stream. This afternoon packed bird and mammal skins in preparation for their being shipped to Hollandia.

This morning another friendly visit of the 11 natives who were in camp yesterday evening. This afternoon another group of 12 natives came into camp to trade sweet potatoes for cowrie shells. Unfortunately their price was too high and much their quantity too small to do any trading. Did however buy a few potatoes. The desire here is for cowrie shells. They have little desire for beads or tobacco. Mirrors also are good trade and although fond of salt, a chunk gets only a small bit or pile of potatoes.
If the smoke alarm is for the area of the building where the fire is detected, it is important to immediately evacuate the building and call 9-1-1. If the alarm is for a different area, it is advisable to check the area and ensure it is safe before evacuating. It is important to know the location of the nearest exit and to use it in case of an emergency. If there is a fire, it is important to stay low to the ground and cover your mouth and nose with a cloth or towel to filter smoke and reduce the risk of inhaling it. It is also important to call 9-1-1 as soon as possible and provide as much information as you can about the fire, including its location and any injuries or damages. It is important to follow the instructions of the authorities and to remain calm and composed.

It is also important to have a fire escape plan in place and to practice it regularly. This will ensure that everyone in the building knows what to do in case of a fire. It is important to keep a fire extinguisher in the building and to know how to use it. It is also important to have a smoke detector in the building and to test it regularly to ensure it is working properly.

Finally, it is important to know the location of the nearest fire station and to call 9-1-1 as soon as possible in case of an emergency. It is also important to keep a supply of water and other firefighting equipment in the building in case of an emergency. It is important to have a fire escape plan in place and to practice it regularly. It is also important to have a smoke detector in the building and to test it regularly to ensure it is working properly.
September 1st, Lake Habbema.

96 rat traps, 22 steel traps—2 Stenomys

This morning collected the rat traps and 13 steel traps from the mossy forest 1 kilometer NNE of camp. Spent the remainder packing equipment for the trip to the Wilhelmina camp. Tomorrow three sets of traps, 1 collecting box and one sack of odds and ends are going up. The day has been the wettest one in the history of our camp. Overcast and intermittent showers throughout the day.

The schedule for the Guba's flight to Habbema today was cancelled because of the weather.

Rand returned with cook and collector from the upper camp. Came down for the proposed observation flight over Wilhelmina top by air. Trip in 7½-8 hours.

September 2nd, Lake Habbema.

9 steel traps—1 bird.

This morning the Guba arrived with 2700 k. of men, gear, and food for the military party. Specimens were returned to Hollandia.

Afternoon spent on the lake with Rand looking for white-winged ducks. Numbers (50) were seen but were unable to get within range for a shot.

September 3rd, Lake Habbema

9 steel traps—1 Pseudocheirus

The unsettled weather prevented the Guba from making its trip to Hollandia today. Heavy clouds this morning and this afternoon intermittent showers.

Packed equipment and developed pictures today. Most of the time however was spent in "piddling".

September 4th, Lake Habbema.

9 steel traps—0

This morning the Guba came in with its provisions and gear for the American party. The presence of the plane in camp is certainly stimulating not only for the
General Account

Map of Route to Mt. Wilhelmina Camp
European but the other members of the expedition. Enthusiasm and cheerfulness reach a maximum at this time.

A short observation trip (3/4 hour) was taken over the vicinity of Wilhelmina. R.A. wanted to look for a suitable route of ascent of the mountain. With a party as large (10) as we have, an easy ascent will be essential. The best and most logical route at present seems to be along the east ridge. This route appears to be more of a scramble rather than the rock climb I had expected.

Guba left for Hollandia soon after 11 o'clock.

There were some 20 or 30 natives in camp this morning anxious to trade anything for the small cowrie shells. Large cowrie shells, matches, beads, salt etc. bring very little in exchange. We purchased bows, arrows, axes, fur head-dresses, armlets, nose bones, penis gourds, spears, and other knick-nacks. They were very friendly and apparently without fear of the plane as it came and went.

This afternoon we spent in packing provisions for the top camp. (4 loads tomorrow, 5 loads the 7th, and 5 loads the 15th) These are our monthly provisions for the camp above. (See Rand's notes for list of materials) Also packed up my own goods for shipment and storage. (2 loads tomorrow, 1 load the 7th)

September 5th. 7 kms. NE Wilhelmina Top.

9 set steel traps, 1 ??? steel trap, left with Mr. Ebeli at Habbema to attend during his duration as radio operator in that camp.

This morning (7.40) we left for the camp at the base of Wilhelmina Top. The camp is some eight hours distant from Habbema, 2/3 of it travelled the first day, 1/3 the second day. A small mid-way camp has been constructed which has blankets and a few provisions for the travelling party. At this camp there were five men including soldiers and convicts. We reached the mid-way camp by noon or a little after and the last of our party was in by 2.00 (See Rand's notes for number in party). Near mid-way camp a falcon's nest was discovered which Rand waited to observe as I proceeded on to the upper camp in his place. He had previously
planned to come straight through with R.A. collecting boy and Sorep, the cook. Arrived in camp at 5.00, finding Tox, his cook, collector, 2 of Rand's collectors, 1 sergeant, 5 soldiers, 2 convicts all well and apparently happy. They seemed to be a bit uncomfortable because of the cold but I hope they will soon get over that. The camp is in good order. There are soldiers and convicts barracks, fly with ends brushed in for Dyak collectors, preparation tent, dining tent, store tent, Rand and R.A. tent, Tox tent, and frames and floors for kitchen and cooks tent and for Brass's and my tent. Walks have been constructed between the buildings so that we can move about without getting our feet wet. Charcoal is being made, draining ditches being constructed, w.c. up. In short it is a very well constructed camp.

September 6th, 7 km. NE Wilhelmina Top.

No traps.

This morning the transport came in, Rand, Archbold, Brass, Teerink, collectors, cook, Dyaks, soldiers, convicts, etc. They were in camp by 11.45 and the carriers with soldiers ready to return to the Between Camp for the night. The day has been spent in settling camp, the kitchen tent and fly and Brass's and my tent were put up. The Dyak collectors had made beds in their shelter of poles and grass. Stores and collecting equipment have been arranged. Radio put up, etc. It has been a rather cloudy day with rain in the morning and again in the afternoon.

September 7th, 7 km. NE Wilhelmina Top.

Today has been a very wet one, rain and mist almost the entire time. During the slack periods, managed to put out two lines of rat traps, one of 149 traps along the base of the rock cliff. It is in a variety of habitats within the region at the cliff base—heavy brushy streamside and slope, brushy slopes and mossy forest slopes, base of cliffs with rock crevices, grassy patches.
beneath cliffs, etc. The other line of 38 (total of 187 traps) rat traps were set along the grassy ravine and bordering brush of the head of the camp valley. Here there are small runways and it was in these that the traps were set.

The count today which checked with previous counts of the traps in camp is 187 rat traps, 194 mouse traps, 15 steel traps. There will be more which are scheduled to arrive with tomorrow's transport.

September 8th, 7 km. NE Wilhelmina Top.

187 rat traps—1 *Pseudohydromys*, 1 *Hydromys*, 1 *Rattus*, 9 *Stenomys* (discarded)
1 *Stenomys* shot by collector (Discarded)

This morning tended traps and while Marcus was left to prepare the specimens, the two Dyaks and I set out the small mouse traps. The line begins near camp and follows along the open brushy stream course SE up the canyon. It goes such for about $\frac{1}{2}$ kilometer and then goes out to the side hill slope, through brushy regions, in open grass slopes and along the grassy base of a large limestone cliff. From the cliff base it goes down through the heavy moss covered brush and for a short way down the open grass canyon slope. The line goes to about 300 meters above camp and passes through most of the conceivable habitats of the hill slope east of camp.

This morning the transport arrived bringing with it food and equipment including 11 steel traps, 55 rat traps, 18 mouse traps.

This afternoon Rand and I went up the saddle looking into the lake valley at the foot of Mt. W. The lower slopes (below the saddle) bordering the camp valley are heavily wooded with a thick growth of mossy brush with scattered small trees. Near the top this is broken with rocky outcrops and open grassy patches. A short distance from the trail and about $\frac{1}{2}$ way to the saddle, Rand showed me the remains of two deadfalls which had been built by the Papuans. These consisted of a runway of sticks some 1 yard in length and about six inches wide placed so as to include a part of what had been previously a large natural run-
way. At the end were several large logs about six inches in diameter which had probably been used as the falling log. I intend to place some steel traps in this region.

September 9th, 7 km. NE Mt. Wilhelmina.

187 rat traps, 194 mouse traps—10 Stenomys
This morning tended traps and set 6 steel traps ½ km. SW of camp near the old Papuan deadfall. Here there are large patches of heavy brush forest (moss covered with open grass spaces between patches. It was in runways between the patches that these traps were set. This afternoon set four steels on the ridge NE of camp. Here there are similar open grass regions between the heavy brushy thickets with large runways connecting the two or more.

This afternoon (4.00) a group of 10 Papuans came over within 100 yards of camp and made their night's camp beneath a rock cliff. The party includes one small girl, 3 boys, a youth and the rest men. They were not unfriendly, three of the men coming near camp and exchanging greetings and one even came in to have a look around. Regardless of this they gave us to understand that we were to remain in our camp and they in theirs. They were ??? with much the same dress and look as those seen about Habbema. They indicated by signs that they had been travelling for about three days and were to continue in a SW direction.

September 10th, 7 km. NE Wilhelmina Top.

187 rat traps, 194 mouse traps, 10 steel traps—5 Stenomys (1 discarded)
This morning tended traps and set 2 more steel traps ½ SW of camp (near other 6).

This afternoon was rain so did not field work.

This morning a small transport (7-15 men) went to the upper camp with food and equipment for Archbold and Teerink. Archbold was unable to move up because of misunderstanding about carriers for his personal equipment. He said Rand will go up tomorrow. This morning about 11 a large transport from Habbema came in
with Van Arcken, Huls, Schroeder, Myer-Drees and carriers, soldiers, etc. They have brought in provisions and equipment for their stay while they climb Mt. W.

About 7.30 PM the Papuans broke camp and passed by camp within 10 feet, and up the hill to the north east. At their camp they left a smouldering fire and a few cut branches.

This afternoon set out 13 mouse traps and 5 rat traps in the heavy moss-brushy run NE-SE east of the cliff. (10 yds SE of camp)

September 11th, 7 km. NE Wilhelmina Top.

192 rat traps, 212 mouse traps, 13 steel traps—1 Rattus, 1 Pseudohydromys, 1 Mallomys, 4 Stenomys, 1 bird.

This morning tended traps and set 7 more steel traps on the ridge ½ kilometer SW of camp. One of the traps previously set here had been sprung by a dog. (dung was within 2 meter). I have seen fresh tracks and droppings along the Papuan trail and Archbold and Brass both reported having heard them call from the ridge SW of camp. There are no pig signs but dog signs are relatively common.

This afternoon tended traps and prepared specimens.

This morning Archbold and Rand left with the transport for the upper camp. Archbold took with him 50 rat traps and 6 steel traps as well as one of my collecting bags. I hope that he is successful with his trapping for the things about that camp should prove interesting.

September 12th, 7 km. NE Wilhelmina Top.

192 Rat traps, 212 mouse traps, 20 steel traps—9 Stenomys, 1 Peroryctes, 1 Pogonomys. The Rattus was dug out of its nest

This morning tended traps and prepared specimens. This afternoon went in search of new trapping localities about the edge and along the stream of the camp valley. Rain prevented an extended search.
This early afternoon Myer-Drees left for the Between Camp with 2 Dyaks, 1 convict, 2 soldiers, to collect botanical specimens in that region. He went reluctantly and only after a proper "jolt" from Brass. As usual he denied all previous agreement or knowledge of them.

September 13th, 7 km. NE Wilhelmina Top.
192 rat traps, 212 mouse traps, 20 steel traps—1 Pseudocheirus, 1 Pogonomys, 2 Stenomys.

This morning tended traps and prepared specimens. This afternoon was spent in looking over the west side of the camp valley for localities in which to set traps. The bend where the grassy valley joins the forest slopes appears to be very rich, better than the forest itself or the grassy valley. Near the end of the valley on the west is some open forest region which may prove a valuable spot to set large (steel) traps for there are numerous large runways there.

About 9.30 the Guba came flying overhead and up to the camp above, circled it several times dropping the post, fresh fruit and radio poles. It went through to Habema, stopped there to deliver the post etc. and then back to Hollandia.

This afternoon while looking for places to set traps, we were surprised by natives and they themselves were apparently surprised. There were a group of eight, 4 men, 2 girls, 1 woman with child. They were "Nap" people going to a region east of the Balim. There were two pigs with the party, one of which I endeavored to purchase with a string of beads. They refused to sell. I gave them several (2) beads each and they in turn gave me five sweet potatoes. They continued along the trail at a rather rapid walking gait, looking back as if expecting us to attack.

Tox went to upper camp.

September 14, 7 km. NE Wilhelmina Top.
192 rat traps, 212 mouse traps, 20 steel traps—6 Stenomys, 1 Pseudohydromys

This morning tended traps and prepared specimens. This afternoon reset 151
rat traps and 18 mouse traps. They were removed from the head (east) of the camp valley where they were set along the rickety base of the cliff. The new line continues along the southern part of the cliff, portion not previously trapped in and continues along the lower SW edge of the camp valley for about ½ the distance of the valley and then it goes up the hill slope for 50-100 m. This morning a transport came in from Habbema with food and supplies. Took up the 36 rat traps which were set about camp to send tomorrow to the camp above.

September 15th, 7 km. NE Wilhelmina Top.
151 rat traps, 212 mouse traps, 20 steel traps—1 Peroryctes, 1 Pogonomys, 1 Rattus, 17 Stenomys (4 discarded). The Phascogale was captured yesterday by one of my collecting boys.
The day spent in tending traps, preparing specimens and taking care of the dry material.
At noon Meyr-Drees returned from the (Tissen) Between Camp with his two days botanical collection.
A transport went up to the camp above this morning and returned with a note from Rand saying Archbold is on the peak and will not come down till the 16th.

September 16th, 7 km. NE Wilhelmina Top.
151 rat traps, 212 mouse traps, 20 steel traps—1 Peroryctes, 1 Pogonomys, 1 Phascogale, 1 Eudromicia, 9 Stenomys (4 discarded)
This morning tended traps and prepared specimens. This afternoon reset the mouse traps,(189) from the canyon NE of camp to the NE side of the camp valley. That is in the open forested slope of the valley. There were numerous small runways through the moss and grass of the forest border and it is in these that most of the traps are set.

Letter from Archbold.
Brass or Richardson:- Rather bad news regarding climbing Wilhelmina
from the East or South. We could find no feasible way to do it. We got to the top of the ridge directly south of this camp in two hours or a little under. Altitude of saddle 4230. We then spent about an hour looking for a way to the west. We could find no feasible way of traversing along the top of the ridge and as both sides were precipitous it looks as if the only way to do was to go down a narrow couloir or valley that ran between the grey limestone and a blackish rock (basalt?) in a westerly or a little south of west and then cross an old rock slide to a small basin. At the foot of the cliff there was a waterfall, at the edge of the basin few shrubs and a couple of holes about three meters deep where an underground stream ran. We decided to camp in the basin as it then was about noon and as the carriers had to get back it did not seem advisable to keep them any longer. We had quite a hail storm that afternoon and some of the hail stayed on the ground till eight the next morning, camp 3982 meters.

The next morning we went up a valley with one or two old rock falls between the limestone and a brownish sandstone. We rested just short of the saddle at an altitude of 4270. We forgot to look at the time or the altimeter after this, but I judge we were about fifteen minutes from the saddle. From the saddle we got a fine view of Carstens and the south coast to the west. To the south there were two small peaks, the sandstone one and a black basalt? one, then another apparently of the same stone as Wilhelmina. That was quite high and very massive with a flat top. Directly to the north was the snow of Wilhelmina, towards which we climbed. We had to use the rope as the rock was steep, smooth and there were few handholds. It soon was apparent that we had climbed a ridge to the south of the peak itself so that when we got to the top we commenced to climb to the east with the idea of trying to see where we could get down but everywhere it apparently was an overhanging cliff that we were on and the valley between was far
from inviting, being strewn with fallen rocks which are constantly coming down from the top. I heard six or seven and saw one or two. Another thing—we could see no easy route up. I saw one quite difficult route, possibly needing the help of a piton or two in order to get into a couloir which went straight up under the v of the snow. The other route I could not follow very well but I don't think it would prove easy. It was the southeastern arete. I estimate that we got to an altitude approximately 250 meters under the top. We returned to {exxonx} camp and spent the afternoon trying to work out an alternative but as there did not seem to be any we came back to Scree Valley camp yesterday, getting in about ten o'clock. At this time I hold little hope of finding a feasible route up in the time allowed. We intend to go to the north of Wilhelmina and see if the couloir on the north face is climbable and if not, then to try and pick up Kramer's route. I do not remember if there are two ridges starting from the main peak itself, one going west, the other southwest. If there are, then Kramer's route probably is still practicable, though whether we can do it in the time is another question. If there are not two ridges in a westerly direction, then the mountain has shifted and changed so that there is no feasible route up. That is only my opinion, based on what little I have seen.

I don't feel that it is worth interrupting the collecting greatly to climb Wilhelmina, which has no scientific value as far as we are concerned. What are your views on the subject?

With best of luck to you both, I am,

Unsigned.

Second letter from Archbold.

Richardson:— I think it would be a good idea if you are about finished down there, to come up here. I will not be able to trap the slope
Rather bad news regarding climbing Wilhelmina from the East or South. We could find no feasible way to do it. We got to the top of the ridge directly south of this camp in two hours or a little under altitude of saddle 4250. We then spent about a hour looking for a way to the west. We could find no feasible way of traversing along the top of the ridge and on both sides were precipitations it looks as if the only way to do was to go down a narrow couloir or valley that ran between the grey limstone and a blackish rock (basalt?) in a westerly or a little south of west and then cross an old rock slide to a small basin at the foot of the cliff there was a waterfall at the edge of the basin a few shrubs and a couple of holes about three meters deep where an underground stream ran we decided to camp in the basin as it then was about noon and as the carriers had to get back it did not seem advisable to keep them any longer. We had quite a hail storm that afternoon and some of the hail stayed on the ground till eight the next morning camp 3982 meters. The next morning we went up a valley with one or two old rock falls between the limstone and a brownish sandstone we rested just short of the saddle at an altitude of 4270. We forgot to look at the time or the altimeter after this, but I judge that we were about fifteen minutes from the saddle. From the saddle we got a fine view of Carstensen and the south coast to the west. To the south there were two small peaks, the sandstone one and a black basalt? one then another apparently of the same stone as Wilhelmina that was quite high and very massive with a flat top. Directly to the North was the snow of Wilhelmina and towards which we climbed, we had to use the rope as the rocks were steep smooth and offering few hand holes. It soon was apparent that we had climb a ridge to the south of the peak itself so that when we got to top we commenced to climb to the east with the idea of trying to see were we could get down but everywhere it apparently was an overhanging cliff that we were on and the valley between was far from inviting being strewn with fallen rocks which are continually coming down from the top I heard six or seven and saw one or two another thing we could see no easy route up I saw one quite difficult route possibly needing the help of a piton or two in order to get into a couloir that went straight up under the west ridge I could not follow very well but I don't think that it would prove easy it was the southeastern arête. I estimate that we got to an altitude approximately 250 meters under the top. We returned to camp and spent the afternoon trying to work out an alternative but as there did not seem to be any we came back to Scree valley camp yesterday getting in at about ten o'clock. At this time I held little hope of finding a feasible route up in the time allowed. We intend to go to the north of Wilhelmina and see if the couloir on the North face is climbable and if not then to try and pick up Kramer's route. I do not remember if there are two ridges starting from the main peak itself one going west the other southwest if there are then Kramer's route is probably still practical though whether we can do it in the time is another question if there are not two ridges in a westerly direction then the mountain has shifted and changed so that there is no feasible route up that is only my opinion based on what little I have seen.

I don't feel that it is worth interrupting the collecting greatly to climb Wilhelmina which has no scientific value as far as we are concerned. What are your views on this subject?

With best of luck to you both I am
1938 New Guinea Expedition

Richard Archbold, Leader
A. L. Rand, Ornithologist and Assistant Leader
Wm. B. Richardson, Mammalogist
L. J. Brunn, Botanist
Russell R. Rogers, Pilot
Gerald D. Brown, Flight Engineer
Raymond F. Bouth, Radio Operator
Harold G. Ramm, Radio Operator

Richardson

I think that it would be a good idea if you are about finished down there to come up here. I will not be able to trap the slopes above camp which is full of large run ways Wallabies?

Please send up another wash basin

see you tomorrow

Mrs. Goss sent her's around on Brasses kept up by dried specimen.

collected 20 ft. stenonyx

Pseudobulbus

and more stelidae
above camp which is full of large runways, Mallomys? 

Please send up another wash-basin. 

See you tomorrow, 

Signed Archbold. 

PS. Please send Kramer's account on Brass' ??? by dried specimens. 

Collected 2 sp. Stenomys, 1 sp. Pseudocheirus. 

Need more steel traps. 

R.A. 

--- 

September 17th, 7 km. NE Wilhelmina Top. 

151 rat traps, 207 mouse traps, 20 steel traps—1 Eudromicia, 2 Rattus, 1 Dasyurus, 1 Pseudocheirus, 18 Stenomys (2 discarded) 

Spent the day tending traps and preparing specimens. 

This morning (9.30) Brass and two of his collectors moved up to the camp above. 

(Scree Valley Camp) Notes from Archbold says that he is having difficulty in finding a good route to the top of Wilhelmina. I hope that he will soon discover one. 

Saw a group of 10 or 15 natives along the track leading from the base of camp valley toward the SE. They would have nothing to do with me except to beckon me away from their party. This party consisted of both men and women, both carrying large mesh bags of what appeared to be sweet potatoes. The men would not answer my salutation of "Nap". 

September 18th, 2 km. E Mt. Wilhelmina. 

151 rat traps, 207 mouse traps, 20 steel traps—6 Stenomys, 1 Pogonomys (from 7 km. NE Wilhelmina Top) 

This morning tended traps and prepared specimens and packed my equipment to move to Scree Valley camp. 

At 10 AM I left camp with my collecting boy Osang, 3 Byal carriers (1 pr military) and 2 soldiers. We followed the Papuan trail SE from camp past an un-named lake
and up over a saddle to Scree Valley camp, arriving there at 2.30. The camp base is situated at the end of a small waterfall at or near the edge of the timber line. Everyone here seemed well and happy, especially Rand for today he obtained a new species of bird, the first one from this camp.

At the camp below I left two collecting boys, Marcus and Jalong, with 151 rat traps, 207 mouse traps, and 9 steel traps. They have instructions to tend them each morning and to prepare the mammals taken. Three days from today they are to move 1/2 of the [harms] two trap lines to a new locality and for each day following until all the traps have been changed. Marcus the Ambonese is in charge.

Today I brought with me 11 steel traps and 1 rat trap, which are to be set out tomorrow.

September 19th, 2 km. E Mt. Wilhelmina.

Bo traps. This morning Rand and I went up the Scree Valley for about 1 kilometer. He was looking for birds and an owl in particular. I was looking for mammal signs and a place to set the steel traps. Small runways probably *Stenomys* are fairly common in the region particularly along the borders of grass patches. About the bases of the talus slides where the larger boulders have piled up and through time have been grown about by moss, grass and bush, are larger runways which appear to be those of *Mallomys*. Such runways go through the bushy areas bordering the large talus and seem to disappear in the open grassy land. There are many refuges beneath these boulders and about these dung can be found which apparently belongs to this animal. In the heavier grassy areas there is a third type of runway which seems to go indiscriminately through the grass. There are many small skeleton ??? and areas which have been dried up in these regions. These I believe are made by *Feroryctes*.

We examined the haunt of the owl which Rand found yesterday. Pellets and some of the skull or parts of were saved (to be examined later)

This afternoon I set out 11 steel traps and 1 rat trap east of camp 1/2 km. in and about the old large rock talus.
Meyr-Drees and Schneider came up from the camp below, the former to help Brass collect botanical material specimens in this region, the latter to go on the patrol to Wilhelmina top.

September 20th, k 2 km. E Mt. Wilhelmina.

87 rat traps, 17 steel traps—2 *Stenomys*.

This morning Archbold, Rand, Teerink, Schroeder and carriers left camp (7.50) in search of a suitable route up Mt. Wilhelmina. They went over the saddle, west of camp, on to the south slope of the easterly ridge of Mt. Wilhelmina. Archbold left with me his collecting boy and traps which I am to use to the best of my ability. Tended traps and prepared specimens this morning. This afternoon the two collectors and myself reset the 86 rat traps and 6 steel traps. The line begins 30 m. above the level of camp and continues in a SSE direction up the side of an open forest slope, through a grassy saddle and on to the Wilhelmina ridge below the precipitous rockwall. This latter region was a very old talus slope which has become overgrown with moss, grasses and herbs, the grasses, however, dominating. Through this grass there are many runways, probably belonging to *Stenomys*, *Peroryctes* and *Mallomys*.

Morning I sent down to the lower camp 19 skins and skulls of mammals collected by Archbold during his stay at this camp.

Radio again this evening.

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<th>Owl pellet examination</th>
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<th>1 mallomys Juv. or ??? very recent</th>
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There are parts of skulls which were saved. These were picked up about the roost and apparently were a year or more old for the pellets had disintegrated, having the bone in a scattered heap. At one time it had apparently been used considerably, possibly as a nesting site.

A collector (one of Rand's) came in today with what he believed to be more pellets. These however proved to be dung of *Malomys* and several partially decayed scuts. Part of the material (scuts) was saved.

September 21st, 2 km. E Mt. Wilhelmina.

87 rat traps, 17 steel traps--1 *Peroryctes*, 3 *Rattus*, 7 *Stenomys* (2 discarded)
2 birds. *Pogonomys* taken by cook from washbasin.

This morning tended traps and prepared specimens. This afternoon finished up preparation. The heavy mist and rain from about 11.00 on prevented any field work this afternoon.

A transport of 4 Dyaks and 2 soldiers came up from the lower camp with food stuff.

September 22nd, 2 km. E Mt. Wilhelmina.

87 rat traps, 17 steel traps--1 *Peroryctes*, 1 *Stenomys*, 3 *Rattus*

This morning the boys tended the traps and I went down the valley to a rock which Brass had previously pointed out to me. This rock was one of a number of very large boulders which had come with the talus into this valley but because of their size had not become overgrown with moss and grass as the smaller ones had. This particular rock was 11' x 50' x 50' in size and one side resting on another boulder so that beneath there was a large protected area. Scattered about were a number of bones (see material saved) which had apparently come from two or more
sources. One, from owls, for two old dried pellets were found, one containing 2 Stenomys and the other bird bones, presumably grouse. Second from remains or kitchen middens of Papuans for among the latter were several pieces of pandanus nuts and the remains of a very old fire. I attribute the larger mammals to this source. There are two other possibilities to account for this or part of this bone accumulation, one being Dasyurus and the other being dog. There were a few old scats at the back of the room 1/3" x 4" which might be attributed to the former.

Prepared specimens during the late morning and early afternoon. The remainder of the day was spent in the tent because of heavy mist and rain.

September 23rd, 2 km. E Mt. Wilhelmina.

87 rat traps, 17 steel traps—3 Rattus, 2 Stenomys.

This morning tended traps and prepared specimens. This afternoon took a short trip back to the rock where yesterday I found the mammal remains. Picked up some more bones and searched about the region for other possible places where mammals might possibly occur (such mammals as left these kitchen middens)

Today has been very wet, rain and mist the entire time. The sun came through for a short time (11 min) this afternoon but soon closed in again with its perpetual mist.

This morning 4 Dyaks and two convicte came in from the party above (Archbold, Rand, Teerink and Schroeder). They asked for 4 more days food and a few sundry supplies. A note from Dick to Brass stated that the mountain was not climbable. From the east or south there appeared to be several ridges leading in from the west and it was their hope that one of these might prove a good route to the top. They had had only a ½ day of climbing, in search of a possible route, in the last 4 days. Bad weather, rain and mist have kept them in their camp.

Tomorrow permitting they will move camp towards the west after their transport arrives.

This morning a transport came up from the camp below with four Dyaks and soldier
Information concerning Archbold trapping in this region—Total 19 specimens, #4951 to and including 4969, from 13th to 19th.

50 rat traps sent to him and 6 steel traps on the 11th, set on the 12th (7 days)
36 " " " " " " " " 14th, " " " 15th (4 days)
50 x 7 = 350 1 42
36 x4 = 144

494 rat traps, 42 steel traps = trap nights.

September 24th, 2 km. E Mt. Wilhelmina.
87 rat traps, 17 steel traps—2 Rattus, 3 Stenomys.
This morning tended traps and prepared specimens. This afternoon remained in camp because of the rain and mist.
The transport of 4 Dyakd, 2 convicts and 2 soldiers left at 7 for the party camped on the south slope of the mountain. A note from Rand which came back with the soldiers (11.15) stated that they were moving their camp onto the west side of the mountain.
This morning Dr. Huls came up with one Dyak and one soldier. He reported the following: small transports coming from Habbema to the lower camp every other day. Carriers loads reduced from 21 kilos to 15 kilos per man. All men in good health except for one convict at Habbema who has malaria. Said convict will not work for several days.

September 25th, 2 km. E Mt. Wilhelmina.
87 rat traps, 17 steel traps—1 Rattus, 3 Stenomys
This morning tended traps in rain and prepared specimens. Remained in the camp this afternoon because of the bad weather. Rained most of last night, all morning and on until about 5 oclock this evening. Now the stars are out and the weather seems perfect. Hope it will stay that way for tomorrow; I want to move traps.
The problem requires the following information to be solved:

1. The current equation is given as:
   
   \[ a \times b = 2 \times 6 = 12 \]

2. The problem statement suggests that the equation is to be solved for the unknown variable 'a'.

3. The equation is presented in a simplified form, indicating a multiplication operation.

4. The solution involves isolating the variable 'a' by dividing both sides of the equation by 'b'.

5. The correct solution is obtained as:
   
   \[ a = \frac{12}{b} \]

6. The variable 'b' needs to be specified for a complete solution. If 'b' is given, the value of 'a' can be calculated.

7. The problem emphasizes the importance of understanding the given equation and applying algebraic operations to solve for the unknown variable.

8. The solution process involves basic algebraic manipulation, ensuring clarity in the steps taken to solve the equation.

9. The final solution highlights the role of algebra in simplifying problems and finding solutions to given equations.
September 26th, 2 km. E Mt. Wilhelmina.
87 rat traps, 17 steel traps—2 Rattus, 2 Stenomys, 1 Pogonomys
This morning the two boys tended traps and Brass and I went up Scree Valley to
the second lake (4150 m.). This lake is very small, situated in a depression
at the line of the northern cliff face of Mt. Wilhelmina. We passed by two
of Kramer's old camps, one only a short distance (300 yds) above camp and the
other about 1 kilometer from camp. The former was probably one made by the
patrol party "to the east", the other one of their main camps.
This morning during the few minutes of clear weather snow could be seen on the
slopes of the mountain. Most of the day however it has rained, clearing for a short
while late this afternoon but soon clouding over and raining.

September 27th, 2 km. E Mt. Wilhelmina.
87 rat traps, 17 steel traps—1 Stenomys (discard), 4 Rattus (1 discard), 1
Pogonomys, 1 Phascogale, 1 Peroryctes.
This morning removed the traps (83 rat, 6 steel) from the north ??? slope to the
east of Mt. Wilhelmina. They were reset again on the east slope of a hill west
of camp. These traps were set in varying habitats from the forest margin, long
grass hill slope, to brushy thickets.
This afternoon prepared specimens.
Today has been the first good one during this week; there was sun and shadow
intermittently but no rain until about 5 this evening.

September 28th, 2 km. E Mt. Wilhelmina.
84 rat traps, 17 steel traps—1 Pseudocheirus, 1 Pogonomys, 5 Stenomys
Tended traps and prepared specimens this morning. This afternoon remained in
camp because of bad weather.
This noon Archbold, Rand, Teerink, Schroeder, 4 Dyaks and 4 convicts returned
from Mt. Wilhelmina. They have been about the south and west side of the mountain
for the last eight days looking for a route to the top. Due to bad weather (1 day
suitable for climbing) and insufficient time they were unable to reach the find a suitable route to the top. Archbold brought in a portion of a Mallomys skull from the first camp (rock camp) on the other side.

Our planning to break camp during the next few days and move back to Habbema.

September 29th, 2 km. E Mt. Wilhelmina.

84 rat traps, 17 steel traps—1 Stenomys, 1 Eudromicia

This morning brought in all traps and sent them with specimens and some clothing down to the camp below. 2\(\frac{1}{2}\) carrier loads in second transport.

About 7.30 Archbold, Rand and Brass left with bag and baggage for the lower camp. Their plans are to remain there today and tomorrow if possible start towards Habbema. It is the question of carriers which may cause a delay for a day or so.

Tox left at 10.30 with the second transport to the lower camp.

Today we started abandoning this camp. It has been fun giving the Dyaks, soldiers and convicts the surplus food and watching them gorge themselves. Soap, matches and soup also are in great demand.

Collected grouse nest for Rand this afternoon.

September 30th, 7 km. NE Mt Wilhelmina.

No traps out.

Information concerning Marcus and Jalong's results trapping here while I was at upper camp:

Number of specimens—77 (See catalogue, P. 35 and over)

Days set—11, September 19th to and incl. 29th.

Traps—9 steel, 151 rat, 207 mouse.

Trap nights—99 steel, 1661 steel, 2277 mouse.

Total trap nights—4037

Number of trap nights per specimen—52
This morning we, Capt. Teerink and I, left the Scree Valley camp for this camp. It was the final clearing out of the camp, abandoning food and other un-necessary gear, bringing down only specimens and equipment necessary for the continuation of the expedition.

Van Arcken and a transport left this morning from this camp toward Between Camp. (Van Arcken plans to go through to Habbema). They have with them my specimens (3 boxes) and traps as well as collecting equipment.

Today has been spent about this camp preparing for an early start toward Habbema.
October 1, 1938. Lake Habbema.

No traps out.

This morning left the 3560 m. camp at 6:30 and arrived at Habbema about 12:00. My collecting boys, the cook and my equipment came in with the transport.

Carriers 4½ (should be 5) --traps

" 2 (should be 2½) -- collecting gear -- specimens.

" 1 -- Serrong

" 1 (should be 1½) -- radio

" 2 Tents and flies

" 1 -- Kitchen utensils.

There are three loads more at the upper camp which belong to the American party.

Five transports arrived here today, one from between camp and the other from the 3560 m. camp.

A transport of twenty carriers left today to remove material left.

October 2, 1938. Lake Habbema.

No traps.

Today was spent about camp drying specimens in Brass's ovens and other at other odd jobs.

Papuans in today from two tribes "Morip" and Pesigam". Their word for rats including Stenomys, Melomys, Peroryctes, Pseudocheirus and Phascogale is "Bit" or "Bik". Purchased their sweet potatoes and informed them that we desired mammals. Hope they prove to be good collectors.

The last of the transports returned today from the upper camp with one carrier load of my equipment, two carrier loads of tents and flies for the American party. The other seventeen carriers had military and Dutch equipment.
The Guba tried twice today to come in to Habbema. Each time we could hear
the motors through the clouds but no plane appeared. Solid overcast pre-
vented them coming through. Why take the risk.

October 3, 1938. Lake Habbema.

No traps.

Drying specimens and doing odd jobs about camp.

Today the Guba came in bringing one half of the current months food, etc.
It is the first time in the past three days that the weather has opened
enough to let it in. After leaving the lake some 10 or 15 minutes we again
saw and heard the plane. According to their report they had flown into a hail storm and ice had ac-
cumulated on the ship itself. Schreuder, van Arcken, Huls and Ebeli returned
to Hollandia with the plane.

October 4, 1938. Lake Habbema.

No traps.

Spent day about camp drying specimens.

Rand is busy collecting material for group. I am beginning to wonder where
we are going to house all of the material he is collecting. The preparations
and store tent are nearly full and he is only started. Guba had successful trip to Idenburg today. Hope that tomorrow's weather per-
mits its flight here.

October 5, 1938. Lake Habbema.

No traps.

Today spent in packing specimens and collecting material for group.

Today the Guba came in with plane crew - Rogers, Brown, Booth & Barrinka;
and Dr. Huls. Dr. Huls reports all in order at Idenburg camp, no sickness,
no malaria, and clean, well kept camp. The Guba will remain here until the 8th. The crew of which will aid in collecting group.

Today radio from van Arcken reports the river Idenburg very high — one of the barracks is in the water.

The Dyaks en masse, lead by the "capella" came to request to be sent home. They say that the weather is too cold and work too hard. There is probably something deeper than that behind their request. They were pacified by Capt. Teerink, Huls, Tox., etc. I hope this will be satisfactory and lasting.

Result of Mr. Ebeli's 27 days collecting here while I was at the upper camp.

Tended traps from Sept. 6 to Oct. 2.

Traps - 10 steel

Days 27

270 trap night.

Specimens obtained - 0.

October 6, 1938. Lake Habbema.

No traps.

Today was spent working on the group. This morning and early afternoon taking pictures and developing them this evening. The pictures turned out quite well considering subjects and very poor lighting.

Natives were in camp this afternoon with sweet potatoes, axes, bows and arros, etc. for sale. The cost of a small pile (about 2 qt.) was purchased for one cowrie shell. Dick purchased a queer looking pipe the first of that sort of thing I had seen in this region. It was made much like our pipes except the bowl (inside) was much smaller, the stem was apparently a tubular piece of wood. There was a piece of what appeared to be animal gut covering the outer bowl and stem.
October 7, 1938. Lake Habbema.

No traps.

For the exception of odd jobs little has been done today (by me). The continual rain has prevented working outside and made the place a "wet hole" in general. Despite the rain and my bad humor managed to help Brass pack the food stuffs for the lower camp and also to develop two rolls of pictures.

A number of Papuans came in this afternoon. Purchased their potatoes and a few other nick-nacks they possessed.

October 8, 1938. Lake Habbema.

No traps.

Today has been a very busy one. This morning and early afternoon was spent in making photographs of subjects for group (see photographic catalogue). Late afternoon was spent in packing my equipment for transport to the camp below. Consists of the following:--

4 1/2 carrier loads for traps
2 " " of collecting equipment, etc.
1 1/2 " " for radio
1 " " for food (7 days).
1/2 " " for tent
1 1/2 " " for barrong, etc.

I shall have tomorrow providing the Guba arrives in the morning. If not, I will have to remain here until it comes in.

Guba with crew, Archbold, Meyerdrees, Fox's cook boy, Archbold's boy, specimens and part of the group, etc. left this morning for Hollandia. A transport, the first, with Brass, Fox, and about 30 carriers, and soldiers, went to establish the 2800 meter camp.
No Papuans today in spite of the good weather. Suppose they are all interested in the construction of the lower camp. Hope they prove useful in bringing in specimens.

October 9, 1938. 9 km. NE Lake Habbema

No traps.

This morning Guba came in bringing, Jansen, Jacobs,

They were much interested in camp and its working. They inspected the camp, had tea and returned. Fortunately today was ideal for their visit, the best we have had for the past several weeks.

At 12.45 left Habbema for this camp arriving here about 3.30. The trail is NNE of Habbema up a ridge from the grassy valley and down into the mossy forest.

The camp itself is situated in the last of what is the mossy forest on the north facing slope of a tributary canyon of the Grand Valley. Tonight is being spent in a temporary camp near a Papuan shelter (filled with natives).

A permanent camp, being constructed some 110 yd. to the SW. The forest is being cut and the floors for the tents and flys being built over the latter. It is going to be a pleasant compact camp when finished. All pandanus plants remain unmolested. They each have an owner. This was quite apparent this morning, according to Brass, where trouble arose from cutting a few roots of one of these valuable root trees. The trouble soon passed over when the owner received a shell for the damage.

October 10, 1938. 9 km. NE Lake Habbema.

No traps.

Today has been spent in setting up camp. The three personal tents are up. The dining room fly, the collecting boys fly, the preparation tent, the military barracks are all up. There remains the kitchen, the cooks tent,
Fox's tent, Teerink's tent to put up.

There were about 50 natives in camp. A friendly lot over anxious to
sell their sweet potatoes or bananas and watch the process of camp building.
A large quantity of sweet potatoes were purchased at 1 shell for fifteen
large potatoes. I have spent some time in trying to convince them that we
were interested in "Bik" (rats) but to no avail. They did, however, bring
in a mangy parrot for which we paid 1 shell (we were robbed).
This morning about 10.30 Rand, Teerink and transport arrived. They had
thirteen local carriers.

October 11, 1938. 9 km. NE Lake Habbema.

No traps. 1 Phascogale shot by collector and another brought in by natives.
Today was spent in setting traps. 229 (3 broken) rat traps, about 125 mouse
traps, about 10 steel traps. The rat traps were set to the east and southeast of camp in trails through the mossy forest. The mouse traps and steel traps are set in the south and southwest of camp. This region is what Brass calls the mossy forest. It is composed of a moderately heavy growth of forest trees which are laden with moss. The ground and the litter is also covered with moss. It is in large and small trails through this mossy cover that the traps are set.

There are still a number of Papuans about camp bringing in sweet potatoes to sell, helping with the clearing, etc. Marcus has solicited the aid of two natives to help him in his work, trapping, making camp, etc. They appear to be quite apt at forest life and enter into the work readily. There were 16 today that came in with the transport, each carrying approximately 20 kg.

During the setting of traps through the jungle today, I saw two dead falls and three traps which appeared to be snares. The dead falls were similar in construction to those seen at the camps above. These, however, were newly set.
(old traps) and so I could see the manner of preparation.

SKETCHES

The snares were not set so I am unable to describe the action of the set.
In each case the e appeared to be a built up hole in the earth with sticks.
At the entrance there was a rattan noose or catch of some kind which was kept
taut by a 3-ft. spring stick.

ANOTHER SKETCH.

October 12, 1938. 9 km. NE Lake Habbema.

125 mouse traps, 226 rat traps, 10 steel traps: 3 Melomys (2 sp.), 13
Stenomys (1 discarded).
This morning prepared specimens. This afternoon set mouse traps and steel
traps in the mossy forest north of camp.
Today a transport came down from Habbema with one convict and 7 Papuans.
Ordered by radio 2000 skull tags and 1000 glass headed pins. Skull tags
are to be those no used by Tate on last expedition and others to make up the
2000 beginning from #6501.
(information given over radio. See order #12).

October 13, 1938. 9 km. NE Lake Habbema.

205 mouse traps, 226 rat traps, 19 steel traps: 2 Melomys, 9 Stenomys.
This morning tended traps and prepared specimens. This afternoon set out 7?
steel traps but due to rain was unable to do much in the way of field work.
The natives have for the most part been friendly and helpful. They have
carried cargo from Habbema to our camp, brought in sweet potatoes, taro,
bananas, 1 Phascogale, 2 birds, some butterflies, help with the building of
camp and in doing other little things such as getting in fire wood, etc. They
have also been a bother by getting in our way, but the worst of all
is their occasional threats of life with bow and arrow. The first trouble came the day before I arrived in camp when some pandanus trees were injured by falling timber for camp. The tense situation was quieted with a cowrie shell or two. Then yesterday the cook after being annoyed for some time by a Papuan tried to get rid of him and finally did so in the untactful way of pushing him off the platform. The Papuan rushed out of camp and returned with bow drawn. His anger was appeased by Teerink and the sergeant who took the matter over and soothed his savagery with a sufficient quantity of "Hops".

Later in the day the guard was instructed to clear the camp of natives for the night. This was done in the rather rough manner of marching them out by force. The result was that one of their party returned with bow and arrow. The affair was soon turned into a joke and the affair passed over. Today Rand and at another time my two collecting boys were threatened by a native as they passed near their house. There was no harm done but it was a rather unpleasant situation. The native which did the threatening this afternoon acted as my guide. I hope that he may be more peaceable tomorrow.

October 14, 1938. 9 KM NE Lake Habbema.

205 mouse traps, 226 rat traps, 26 steel traps: 1 Melomys, 2 Stenomys, three birds. The two Phascogales were shot by Brass's collecting boy.

This morning tended traps and prepared specimens. This afternoon looked over the region to the east of camp for a possible trapping locality. Along the ridge, to either side of the crest should prove to be a profitable locality as well as interesting.

No trouble with natives today. 17 of them carried food, etc. from Habbema down.
Made four checks on the boiling point operations today as follows:

9.00 AM  Boiling point 90.9  Air temp. 12
10.30 AM  "  90.8  "  13
1.30 PM  "  90.8  "  10
4.45 PM  "  90.8  "  12

Yesterday's boiling point reading 90.9, air temp. 13. Archbold calculated the altitude as 2660 m. Something is wrong somewhere.

October 15, 1938. 9 km. NE Lake Habbema.
205 mouse traps, 226 rat traps, 26 steel traps.-- 1 Lorentzimys, 3 Melomys, 1 Stenomys, 2 birds.
Prepared specimens and tended traps this morning. This afternoon one of Brass's boys showed Rand and I an owl's roost. It contains a number of skeletal parts some of which I shall collect tomorrow. Went for a hunt along the ridge to the west of camp; followed it along for several kilometers and returned along the ridge to the north. No mammals were seen but much interesting country; forest for the most part with occasional openings along the ridges.
Dr. Huls arrived today with a large transport.

October 16, 1938. 9 km. NE Lake Habbema.
205 mouse traps, 226 rat traps, 26 steel traps—1 Peroryctes, 3 Melomys, 3 Stenomys, 1 bird. The three Phascogales were not taken in traps, 2 were shot by Rand and the other brought in by a native.
This morning tended traps and prepared specimens. This afternoon was spent in hunting and looking over the country along the ridge to the east of camp. Returned to the owls nest this morning and collected pellets and skull remains. There are at least 7 sp. in this debris that I have not collected here.
Material identified in five old pellets:

1# 2 Melomys
2# Portion of large mammal, probably Pseudocheirus.
3# 1 Pseudocheirus, 1 Stenomys
4# 1 Bat (insectivorous), 2 Melomys (small sp.)
5# 1 Melomys.

October 17, 1938. 9 km. NE L.Habbema.

205 mouse traps, 226 rat traps, 26 steel traps—6 Stenomys, 3 Phascogales, 1 Uromys, 2 Melomys.

This morning tended traps and prepared specimens. This afternoon reset 220 rat traps and set three steel traps along the ridge to the east of camp and in the canyon to the south.

Transport arrived today. No papuans carrying.

Dr. Huls and Capt. Teerink left this morning for the Habbema camp.

October 18, 1938. 9 km. NE Lake Habbema.

205 mouse traps, 220 rat traps, 29 steel traps—2 Phascogale, 1 Endromicia, 1 Pogonomys, 3 Stenomys (2 discarded), 4 Melomys. The Myotis was taken yesterday evening by Dr. Toxopeus collecting boy: 1 Phascogale was captured by my collecting boys.

This morning tended traps and prepared specimens. This afternoon took a short trip up the stream in search of a good place to set traps. Remained in camp late afternoon because of unpleasant weather.

Saw a new or rather a different type of rat trap this afternoon. It was a rattan affair set on a horizontal log across the stream.
October 19, 1938. 9 km. NE Lake Habbema.

205 mouse traps, 220 rat traps, 29 steel traps:— 2 Phascogales, 2 Pogonomys, 1 Melomys, 2 Stenomys. One Phascogale #5187 was brought in by natives.

This morning tended traps and prepared specimens. This afternoon after the rain ceased took a short troll up the trail. I have been given the duty of buying the native produce and tending the kitchen. This takes time but is a pleasant deviation from my regular duties.

This morning the small mouse traps and 26 of the steel traps were taken up. They were not set this afternoon because of bad weather. Weather and God permitting they will be out tomorrow.

Large transport arrived today from Habbema with reserve food and collecting equipment.

October 20, 1938. 9 km. NE Lake Habbema.

220 rat traps, 3 steel traps — 1 Stenomys, 1 Melomys, 2 birds.

This morning tended traps. One collector prepared the two specimens and rebaited rat traps. The Dyak collectors(2) and I set 198 mouse traps and 26 steel traps. The afternoon took a hike down the trail for about 1½ km. and then onto the ridge to the east. Trapping, that is signs, in that vicinity poor.

Captain Teerink returned from Habbema with transport. 14 natives carried today.

October 21, 1938. 9 km. NE Lake Habbema.

198 mouse traps, 220 rat traps, 29 steel traps:— 1 Phascogale, 4 Melomys 2 sp.), 13 Stenomys (2 discards), 3 birds. 1 Phascogale was set by my collecting boys.
This morning tended traps and prepared specimens. This afternoon explored the area to the northwest of camp. There appears to be some very interesting trapping regions along the brushy face of the stream gorge.

One thing which interested me was a native bird blind. A small dome shape hut 3 ft. high and six feet across. A perch was built ott from the house, a small xink stick 1\frac{3}{4} in diameter, secured at the outer end by a forked stick in the ground. Lashed to within a foot and a half of the end is a bit of bark through which the arrow is to pass and into xink mister bird on his perch. In the end of the perch in the fork of the stick is a clump of moss to catch any misfired arrows. In front of the perch is a small pool of water which appeared to be used as a place for the bird to bathe before meeting his death. SKETCH

October 22, 1938. 9 km. NE Lake Habbema.

198 mouse traps, 220 rattraps, 29 steel traps—1 Lorentzi, 1 Phascogale, two 1 Melomys, 2 Stenomys, 2 birds. Of the other Phascogales one was shot by collecting boy, the other brought in by a native.

This morning tended traps and prepared specimens as usual. This afternoon hunted down the ridge northwest of camp.

Saw new type of hunting device—a framework of sticks lashed together with rattan or jungle rope. At the top of the framework some 8 ft above the ground, the native sits waiting for birds or mammals. It was constructed in rather an open area in the xir brushy forest, the natural place to wait for game.

A large transport arrived today with supplies and equipment for the reserve months (2). There were seven natives carrying today.

This evening the Dr. has a patient unconscious with malaria.
Blind

Hunting perch
October 23, 1938. 9 km. NE Lake Habbema.

198 mouse traps, 220 rat traps, 29 steel traps — 1 Anisomys, 2 Melomys, 1 bird, 1 Btenomys (discarded).

This morning tended traps and prepared specimens. This afternoon reset 216 rat traps and 3 steel traps along the heavy forest and brush of the upper stream bank. This evening watched for bats, four individuals seen three flying in the edge of the forest some 50 or 60 feet from the ground. The other a rapid flying bat about the tree tops. Last evening Brass heard one crawling on the roof of his tent and Rand has observed numerous (?) insect wings about the flies. It is a strange place for bats to feed.

October 24, 1938. 9 km. NE Lake Habbema.

198 mouse traps, 216 rat traps, 29 steel traps — 1 Pseudocheirus, 1 Hydromys, 1 Pogonomys, 1 Phascogale, 2 Melomys, 3 Stenomys, 2 birds, 2 Phascogale brought in by natives, 1 phascogale shot by collector.

This morning and early afternoon tended traps and prepared specimens. Later afternoon explored the stream below camp as a possible locality in which to set traps for water rats.

This morning a transport came in from Habbema. There were three natives plus the Dyaks and soldiers carrying.

October 25, 1938. 9 km. NE Lake Habbema.

198 mouse traps, 216 rat traps, 29 steel traps, 1 Phalanger? 3 Stenomys, 1 Stenomys and 1 Melomys brought in by natives, 1 Phascogale shot by Toxopeus.

This morning tended traps and prepared specimens. This afternoon reset 193 mouse traps and 14 steel traps, Along the stream (at 2900 meters) below camp. The region is that of second growth vegetation on the landslips along the stream banks. This vegetation is brushy with few scattered forest trees.
October 26, 1938. 9 km. NE Lake Habbema.

193 mouse traps, 216 rat traps, 17 steel traps. 1 Dorcopsis, 1 Pseudochirus, 1 Phascogale, 6 Melomys, 6 Stenomys. 1 white-eared Phascogale brought in by natives, 1 black striped Phascogale brought in by Dyaks.

This morning tended traps and prepared specimens. This afternoon prepared specimens. Did not go into the field because of the rain.

Rand observed a living Phascogale today. See his field notes.

Reset 12 steel traps and four mouse traps along the river east of camp.

October 27, 1938. 9 km. NE Lake Habbema

197 mouse traps, 216 rat traps, 29 steel traps. 1 Melomys, 2 Hydromys, 1 Pogonomys, 2 Stenomys, a foot of what appears to be Uromys, 2 birds. The 2 Phascogale were brought in by natives.

This morning tended traps and prepared specimens. This afternoon hunted northwest of camp over the ridge and into the next canyon. Saw nothing of particular interest in the way of mammals or mammal signs. Most of the region is that of Salma forest of a type in which I have already thoroughly trapped.

This evening watched for bats as usual between 6.25 and 6.55. None were seen. Only two nights during the past week have I seen one or two individuals flying high about the trees near the camp clearing.

October 28, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 216 rat traps, 29 steel traps. 2 Lorentzimys, 2 Melomys, 4 Stenomys. The 1 Anisomys, 1 Phascogale, and 1 Pogonomys brought in by Papuans.

This morning tended traps and prepared specimens. This afternoon looked over the lower ridge slope NW of camp. Here there is a large sama
forest and along the stream or canyon there are pandanus groves. Between these two habitats there appears to be a good trapping area on where I should get animals from both habitats and as well as those that need both types of vegetation for their existence.

This afternoon Tox returned from a trip down the trail. He reports a medium size river and gardens within 2½ hours from camp.

October 29, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 216 rat traps, 29 steel traps. -- 1 Dasyurus, 2 Phascogale, 2 Melomys, 2 Stenomys, 1 Hyomys. The Dasyurus #5272 shot yesterday afternoon by collecting boys. The Peroryctes, 2 Phascogale brought in by natives.

This morning I tried without success to repair the radio. This afternoon prepared specimens.

At noon today Brass, Teerink and party returned from a five day search of the next camp site. Brass reports a suitable site some five hours below at the upper edge of population.

A transport came in today of Dyaks, convicts and soldiers.

Weather: 6:00 to 15:00 clear; 15:00 - 17:00 overcast; 17:00 - 20:00 heavy rain.

October 30, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 216 rat traps, 29 steel traps. -- 2 Melomys, 1 Phascogale, 2 Stenomys, 1 Anisomys. The natives brought in the following: 6 Phascogale, 1 Melomys, 1 Stenomys, 1 Phalanger.

The collectors tended traps, measured and prepared nearly all the specimens today. Those in the catalogue, followed by an "x" were brought in by collectors. The numbers in the margins may be disregarded. They were made due to a misunderstanding with the head collector.
This morning at 6:55 I left with a small transport, five Dyaks, 2 soldiers, 1 sergeant, for Habbema. The purpose was to bring up the small defunct radio and return with one of the AWA sets. This we did. Habbema is certainly a deserted place. Most of the tents are down and the general place is one of gradual ruin.

There are a few soldiers remaining there as guard who sort of rattle around in the camp as an old maid in a big house.

Returned here about 2:30; two hours 20 minutes up trail 2 hr. 30 min down; set up the radio and prepared messages. Feel rather weary although it has not been a hard day's travel.

Weather 6:00 - 12:00 large shifting clouds.

12:00 - 20:00 heavy rain.

October 31, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 216 rat traps, 29 steel traps.— 1 Pogonomys, 3 Melomys, 1 Stenomys, 1 Phascogale. 1 Phascogale #5305, and 1 Dactyionax brought in by natives. 1 Phascogale #5307 shot by collecting boy.

This morning tended traps - prepared specimens and tinkered with the radio motor generator. This afternoon went down the trail some one hour distant and crossed the stream and up on the spur to the NW. Looked the region with the idea of setting traps there. The area along the river, the stream side, appears to be the only thing to offer new and different beasts. The span is covered with a sama forest much the same as those trapped in about camp.

Weather 6:00 to 20:00. High overcast with occasional openings.
November 1, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 216 rat traps, 29 steel traps.— 1 Pseudocheirus, 2 Melomys, 1 Stenomys. The native brought in the following: 2 Pseudocheirus, 3 Rattus, 1 Phascogale, Peroryctes, 1 Hyomys, 1 Pogonomys, 1 Mallomys. Dr. Toxopeus shot 1 Phascogale #5317.

Tended traps this morning and the remainder of the day has been spent in camp, preparing mammals and overhauling the Delco motor. The bearing in the rocker arm of the breaker points would freeze when the motor became hot. Reaming of the bearing seems to have solved the difficulty.

This morning took up the rat traps and three steel traps. The Dyaks today wired the wooden top of the treadle to the metal base of each trap.

The transport returned from the camp below which is at present being established. A note from Teerink states that the trip down took several hours, two longer than expected because of high water in the rivers. The natives are friendly and at present he is trying to establish a Papuan government about our camp: two chiefs and 2 police.

November 2, 1938. 9 km. NE Lake Habbbema.

197 mouse traps, 26 steel traps: 1 Pogonomys, 1 Melomys, 1 Stenomys. The natives brought in 1 Phascogale, 1 Eudromicia, 2 phascogales shot by Rand's collecting boys.

Today was spent for the most part trying to repair the radio. Up to date I have been unsuccessful but I hope that trouble will soon be discovered and repaired.

This morning began setting taps, set some 60 before the heavy rain drove us back to camp.

This morning the second transport left for the camp below. 49 Papuans carried. If they continue to carry in such numbers our belongings will soon be in the camp.
According to Teerink's report 80 natives (carrier days) carried from Habbema to this camp.

Weather 6.00-8.00 overcast

8.00 - 10.00 broken overcast with shifting openings
10.00 - 16.00 overcast and rain
16.00 - 20.00 overcast with occasional opening.

November 3, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 60 rat traps, 28 steel traps: 2 {Melomys}, 1 bird, 1 foot of a {Geroryctes}; 19 {Rattus} brought in by natives.

This morning reset 90 rat traps and 1 stell traps and prepared specimens.
This afternoon prepared specimens and worked at a few odd jobs about camp.
Watched for bats this evening but as on other rainy or misty evenings none were seen.

Transport returned from the camp below "Bele" river. They will return tomorrow with another load. There are Papuans here also who desire to carry.

Weather 6.00 - 20.00 overcast with intermittent heavy rain.

November 4, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 150 rat traps, 29 steel traps. 3 {Melomys}, 2 {Stenomys}, 1 bird.

This morning tended traps, prepared specimens and rigged the tent for drying specimens. This afternoon went hunting along the east bank of the river.
Saw no mammals. Came back early because of rain.

Transport left this morning with soldiers, Dyaks, convicts and 37 Papuans.

This afternoon 11 addition went down unescorted. There were 15 loads of the American party taken by the first party.

Weather 6.00 - 20.00 overcast with occasional small opening in morning and light rain in afternoon. Last night there was a very heavy rain.
November 5, 1938. 9 km. NE Lake Habbema.

197 mouse traps, 150 rat traps, 29 steel traps - 4 Melomys, 4 Stenomys, 1 Anisomys. The following brought in by natives: 1 Pseudochirus, 1 Phascogale, 1 Mallomys, 1 Dactylonax.

Today was spent in collecting traps, preparing specimens and packing specimens and equipment. Tomorrow I leave for the 2200 m. camp. Am leaving the radio here for Brass. The transmitter will be taken to Habbema.

Weather: 6.00 - 10.00 clear
10.00 - 14.00 high broken clouds.
14.00 - 20.00 overcast with occasional rain.

Today a transport came down from Habbema, as well as one returning from the camp below.

November 6, 1938. Bele River

No traps. Natives brought in the following: 1 Dactylonax, 1 Phascogale, 5 Melomys, 7 Rattus, 1 Stenomys.

Left camp (2800 m.) with a transport bound for this camp at 7.00 and arrived here about 11.00. It is a rough slow trail due to recent rains, and slippery soil. Our route was that of a native path crossing the camp stream some 3 or 4 km below through a series of ups and downs, with more of the latter until the final last drop of a steep 300 m. slope into the gorge of the river. Here for the first time we see cultivated gardens (small) and permanent houses with thatched grass roofs. The trail comes in at the forks of the river, the northerly one being the larger of the two. The other is probably the same stream which runs past camp (2800 m.). After striking the river we followed it along for about 3/4 of an hour to camp which is constructed at the junction of the "Bele" and " — ". The camp is well situated at the forks of the river on a rise of land. At present
it consists of the military and Dyak quarters, preparations fly, Dyak
cook shack and tents for the four white Teerink, Dr. Huls, Tox and myself.
There are also superstructures to prevent sun heat and poles for the
rigging of other necessary tents and flys. This camp appears to be ideally
located for here we have virgin forest, river, second growth and gardens in
which to collect.
Weather: 6.00 - 20.00 overcast with occasional small opening in morning.

November 7, 1938.
No traps. The natives brought in the following: 2 Eudromicia, 1 Melomys,
2 Phascogale, 2 Rattus.
This morning set out 218 rat traps and 5 steel traps. This afternoon pre-
pared specimens and started one of Brass's ovens for the drying of my
mammals. The numerous dull days has made it difficult to dry specimens.
The Papuans have brought in a number of good things since we have been
here. I hope that their interest and desire to catch mammals continues.
Weather: 6.00 - 12.00 high broken clouds.
12.00 - 20.00 overcast with intermittent rain.

218 rat traps, 5 steel traps - 1 Melomys, 1 Rattus. The following
brought in by natives: 1 Mallomys, 1 Anisomys, 1 Melomys, 1 Phascogale,
10 Pogonomys, 8 Rattus.
This morning tended traps, prepared specimens and set out about 90 mouse
traps and two steel traps. This afternoon prepared specimens.
Locality of trap lines: The traps set yesterday begin at camp through
old grassy garden and second growth; along the steep river slope in rocky
terrain with virgin forest, here cross several land slips; up the canyon
slope and over the ridge through heavy forest; into a newly cleared
garden; through an old but producing garden, down the ridge slope toward camp through second growth forest about grassy clearing of native houses; through abandoned grass grown garden. This line is in the general direction NE from camp covering a distance of not over \( \frac{1}{2} \) km. air line. The traps today were set SW of camp some \( \frac{1}{2} \) km. through a forest of the canyon slope and along the ridge. The latter, along the ridge, had been well worked over by native pigs and so I consider it a very poor place to trap.

Weather: 6.00 - 12.00 overcast

12.00 - 13.00 large broken clouds

13.00 - 20.00 overcast with intermittent rain.

November 9, 1938. Bele River.
90 mouse traps, 218 rat traps, 7 steel traps: 1 Melomys, 1 Stenomys. The following brought in by natives: 26 Rattus, 3 Phascogale, 3 Melomys, 1 Stenomys.
This morning tended traps, the rest of the day was spent in preparing specimens.
Weather 6.00 - 8.00 overcast

8.00 - 20.00 large shifting clouds with occasional complete overcast complete overcast and light rain.

90 mouse traps, 218 rat traps, 7 steel traps - 1 Pseudocheirus, 1 Stenomys, 2 Melomys. The following brought in by natives: 2 Phascogale, four Melomys, 1 Stenomys, 8 Rattus.
This morning up to 11h00 tended traps and prepared specimens. The remainder of the day was spent in watching a native dance and feast put on in our.
It consisted of a dance, pig killing, preparation and cooking of pigs
(4), smearing our heads with grease and blood, eating of roast liver,
ear marking pigs, being sprinkled with blood and water, inspecting groups
of men and group of women, the feast and the buying of the roast pigs.
Today the transport arrived from the 2800 m. camp and with it Brass and
Rand. The camp is abandoned, all material and food stuffs have been
moved down.

Weather 6.00 - 14.00 large broken clouds; 14.00 - 20.00 overcast, rain.

November 11, 1938. Bele River.
90 mouse traps, 218 rat traps, 7 steel traps - 1 Melomys, #5485. The
natives brought in the following: 4 Pogonomys, 12 Rattus, 4 Stenomys,
6 Melomys.
This morning tended traps and prepared specimens. This afternoon took a
stroll up the canyon slope across the river from camp to the north, up the
steep hill slope, through gardens and second growth, into the primary forest
to the main trail. Followed the main trail to the west through the forest
and into garden and to the first houses. Natives here very friendly. From
or there left the main track back down the ridge through cut over/second
growth forest to the river trail some 3/4 km. above camp.
Teerink, Tox and Dr. Huls left this morning for the landing place on the
Grand River with a party of ten soldiers, 12 Dyaks and 11 convicts.
Weather 6.00 - 20.00 overcast with rain in afternoon and evening.

November 12, 1938. Bele River.
90 mouse traps, 218 rat traps, 7 steel traps - 1 Stenomys #5496, 1
Melomys #5504. The following were brought in by natives: 4 Melomys,
5 Rattus, 1 Dactyonax, 1 Anisomys, 2 Peroryctes, 3 Phascogale.
This morning tended traps and prepared specimens; this afternoon prepared specimens.

Today the Dyaks set out 22 steel traps in the forested canyon slope NE of camp.

Weather: 6.00 - 9.00 overcast

9.00 - 14.00 large shifting clouds with occasional large openings.

14.00 - 18.00 overcast, rain.

18.00 - 20.00 clear.


90 mouse traps, 218 rat traps, 29 steel traps: 1 Melomys #5540. The following was brought in by natives: 1 Dorcopsis, 1 Pseudocheirus, 25 Rattus, 1 Mallomys, 1 Peroryctes, 2 Phascogale, 8 Pogonomys, 1 Uromys, 1 Budromicia. The specimens from 9 km. NE Lake Habbema #5548 to #5557 were collected and prepared by A. L. Rand.

This morning early tended traps. The remainder of the day was spent in preparing specimens. This evening packed a box of dried skins to be taken to Habbema tomorrow.

Weather 6.00 - 10.00 overcast.

10.00 - 15.00 large clouds with occasional small opening.

15.00 - 20.00 overcast.

Last night there was a heavy rain.


90 mouse traps, 218 rat traps, 29 steel traps: 1 Phascogale, 1 Stenomys, 1 Lorentzimys. The natives brought in the following: 2 Anisomys, 1 Stenomys, 12 Melomys, 2 Dactylonax, 2 Peroryctes, 1 Hyomys, 1 Phascogale, 4 Budromicia, 1 Dasyurus.
The early morning was spent in tending traps; the remainder of the day in preparing specimens.

This morning 7.10 Rand, with small transport left for Habbema. They are to remain there until the Guba removes the specimens and equipment. Natives brought in a pig for which they refused 20 shells. On the other hand they willingly and with enthusiasm except two shells for a large Pseudocheirus.

Weather 6.00 - 20.00 broken overcast with occasional opening - no rain.

November 15, 1939. Bele River.

198 Mouse traps, 218 rat traps, 29 steel traps: 1 Lorentzimys, 2 Melomys.
The natives brought in the following: 17 Melomys, 3 Stenomys, 1 Rattus, 5 Pseudocheirus, 1 Dorcopsis, 4 Peroryctes, 1 Phascogale, 1 Mallomys, 2 Anisomys.

This day was spent between the radio and the preparation fly.

Yesterday forgot to mention that the remainder of the mouse traps in the line of steel traps in the forest west of camp.

Weather 6.00 - 14.30 clear with scattered clouds.
14.30 - 20.00 overcast with rain.

Nx


198 mouse traps, 218 rat traps, 29 steel traps: 1 Hyomys, 2 Melomys, 1 Stenomys. The natives brought in the following: 3 Peroryctes, 4 Phascogale 7 Pogonomys, 4 Melomys, 2 Anisomys, 1 Phalanger, 1 Endromicia.

Today for the most part was spent in preparing mammals although some time was taken up with radio.

The Guba made a trip to Idenburg then to Grand River, and up to Habbema.

Weather: 6.00 - 8.00 dull overcast; 8.00 - 14.00 clear with occasion clouds; 14.00 - 16.00 storm to north; 16.00 - 20.00 overcast and rain.
November 17, 1938. Bele River.

198 mouse traps, 218 rat traps, 29 steel traps.

1 Phascogale, 2 Melomys. The following brought in by natives: 2 Mallomys, 1 Phalanger, 1 Uromys, 2 Anisomys, 10 Pogonomys, 15 Melomys, 5 Stenomys, 1 Hydromys, 1 Peroryctes, 5 Eudromicia.

Tended radio and rats today and nothing else. The natives are still bringing in more material than I can care for.

The Guba did not make scheduled flight today because of the weather.

Weather: 6.00 - 9.00 dull broken overcast; 9.00 - 12.00 broken clouds, large openings; 12.00 - 20.00 overcast rain.

November 18, 1938. Bele River.

198 mouse traps, 218 rat traps, 29 steel traps - 0. The natives brought in the following: 22 Melomys, 10 Stenomys, 2 Phalanger, 1 Hydromys, 6 Anisomys, 1 Phascogale, 11 Pogonomys, 3 Pseudocheirus.

The early morning was spent at the radio and the remainder of the day preparing rats. Prepared skulls only of a quantity of material which had been accumulating and which I had previously had no opportunity to care for.

The Guba made its flight to the Balim and to Habbema today.

Weather: 6.00 - 12.00 clear; 12.00 - 20.00 overcast with rain.

November 19, 1938. Bele River.

198 mouse traps, 218 rat traps, 29 steel traps - 0. The natives brought in the following: 22 Melomys, 10 Stenomys, 2 Phalanger, 1 Hydromys, 6 Anisomys, 1 Phascogale, 11 Pogonomys, 3 Pseudocheirus.

Again today my time was spent at radio and rats.

Rand returned this morning from Habbema. The camp there is now abandoned.

He brought with him the repaired transmitter and so now after 18 days we are again in the news.
Guba made flight to Grand River today.

Weather: 6.00 - 12.30 generally clear with occasional shifting clouds.
12.00 - 20.00 overcast with heavy rain.


198 mouse traps, 218 rat traps, 29 steel traps: 1 Rattus.
The natives brought in the following: 6 Pseudocheirus, 2 Anisomys, 1 Phalanger, 2 Peroryctes, 20 Melomys, 18 Stenomys, 1 Uromys, 4 Phascogales.
This morning was spent tending traps and preparing specimens. The afternoon in preparing specimens.
This late afternoon a native came in and by the use of signs led us to believe that one of the native women had been attacked by soldiers and that the man was looking for pay back. He left denying the question and one of the police also denied the report. Regardless all soldiers out of camp today were rounded up and questioned. There was a good deal of stir in camp over the affair which is now dropped until tomorrow of further developments. The guard is doubled.

Weather: Unsettled all day shifting clouds, rain, sunshine.
Took up the rat traps and steel traps set east of camp in the forest.


198 mouse traps, 24 steel traps: 1 Phascogale. The natives brought in the following: 1 Hydromys, 2 Uromys, 1 Anisomys, 2 Peroryctes, 16 Melomys.
This morning was spent in setting the rat traps in the forested ridge east of camp. It is higher and in a more open forest than that previously set in. Large sana with scattered undergrowth and litter. The latter part of the trap line is in an old cut over and grass land garden area. The 90 mouse traps and 2 steel traps set SW of camp were taken up yesterday and reset in the forest to the north. This latter was done by the collecting boys.
There was no more information or no signs of unrest among the natives that a native woman had been attacked by soldiers. It is apparently a false story.

Weather: 6.00 - 15.00 - generally clear with few scattered clouds.

15.00 - 20.00 - overcast with light rain

November 22, 1938. Bele River.

198 mouse traps, 206 rat traps, 29 steel traps: 2 Melomys, 2 Stenomys #5947 to 5959 inclusive. The natives brought in the following: 1 Peroryctes, 6 Pseudocheirus, 5 Phascogale, 4 Anisomys, 13 Melomys, four Phalangers, 1 Eudromicia, 1 Pogonomys, 2 Stenomys.

This morning tended traps and prepared specimens. This afternoon prepared specimens. The natives are still bringing in quantities of material.

Weather: 6.00 - 18.00 overcast with occasional small openings, light afternoon rain - 18.00 - 20.00 clear.


198 mouse traps, 206 rat traps, 29 steel traps. 1 Dasyurus, 1 Melomys, 1 Stenomys. The following were brought in by natives: 8 Pogonomys, 6 Anisomys, 2 Phalangers, 22 Melomys, 1 Peroryctes, 1 Dactylyonax, 2 Phascogale, 1 Pseudocheirus.

This morning tended traps and prepared specimens. This afternoon prepared specimens.

Today for the first time native woman came into (near) camp to sell sweet potatoes.

Weather 6.00 - 12.00 scattered clouds, sunshine; 12.00 - 20.00 overcast with occasional opening.

198 mouse traps, 206 rat traps, 29 steel traps: 1 Peroryctes, 1 Phascogale, 1 Melomys (discarded). The following were brought in by natives: 9 Anisomys, 3 Pogonomys, 8 Pseudocheirus, 6 Peroryctes, 5 Phascogale, 16 Melomys, 1 Dorcopsis, 1 Phalanger, 1 Lorentzimys.

This morning tended traps and prepared specimens; this afternoon prepared specimens.

According to Rand a story came in by the natives that Teerink was on his way here. We expect him tomorrow sometime.

Weather 6.00 - 8.00 overcast
8.00 - 14.00 clear with some shifting clouds
14.00 - 20.00 overcast with light rain.


198 mouse traps, 206 rat traps, 29 steel traps - 1 bird. The natives brought in the following: 4 Pogonomys, 2 Pseudocheirus, 7 Anisomys, 5 Phascogale.

This morning about 11.15 Capt. Teerink, Tox, Tox's cook and transport arrived from the Grand River Camp after three days of travel.

Weather 6.00 - 7.30 overcast; 7.30 - 14.00 large shifting clouds; 14.00 - 20.00 overcast and rain.


198 mouse traps, 206 rat traps, 29 steel traps - 1 bird. The natives brought in the following: 4 Pogonomys, 2 Pseudocheirus, 7 Anisomys, 5 Phascogale,
3 Peroryctes, 3 Hydromys, 4 Melomys.

Today prepared specimens and packed material for the transport to the other camp. The following is a bit with weights of equipment ready to go down.

Box 22 - Shells, flat skins, collecting equipment 18½ k
Box 44 - Small mammals 10½ k
Sack Nr. X - Flat skins 6 k
Box 27 - Large mammals 9½ k
Case #2 - Alchoholics 4½ k.
Box 4 - Collecting box with green specimens 18½ k.

The weather: 6.00 - 20.00 overcast with afternoon and evening rain.


198 mouse traps, 206 rat traps, 29 steel traps: 1 Pogonomys, 1 Melomys, 1 Stenomys. The following were brought in by natives: 4 Phalangers, 4 Peroryctes, 8 Phascogale, 1 Endromicia, 4 Pseudocheirus, 11 Melomys, 6 Stenomys, 4 Anisomys, 1 Dasyurus, 1 Hydromys.

This morning tended traps and prepared specimens. This afternoon went in search of a trapping locality on the east slope of the "Gu-Guy" River (the small stream near camp). The area, although favorable for trapping, has been disturbed by pigs, thus rendering it unsuitable.

About 7.00 a large transport left this morning for the camp on the Grand R. All Dyaks (coollyes) convicts and many soldiers. The American party had 25 loads. This transport is the first of the two employed to move camp from here to there.

This morning took up all of the rat traps and five of the steel traps. They are to be reset tomorrow.

Weather: 6.00 - 10.00 overcast; 10.00-16.00 broken with sun and large clouds; 16.00 - 20.00 overcast, very light rain.

198 mouse traps, 24 steel traps - 0. The natives brought in the following:
11 Anisomys, 3 Peroryctes, 2 Uromys, 2 Dorcopsis, 2 Phalanger, 3 Phascogale, 1 Melomys, 4 Pseudocheirus.

This morning reset 213 rat traps and 5 steel traps in the forest east of camp. Followed the main trail out of the little valley and into the forest edge for about 200 yards. There started the line setting all of the traps in the north facing slope of the Bele River. The region is that of heavy open forest with a thick undergrowth and a forest floor of leaves and litter. In spate the floor is very damp and black with rotting leaves. This afternoon prepared specimens.

Weather 6.00 - 15.00 clear with occasional shifting clouds; 15.00 - 20.00 overcast, light evening rain.


198 mouse traps, 213 rat traps, 29 steel traps - 1 Stenomys, 8 Melomys (2 discarded). The natives brought in the following: 5 Anisomys, 1 Hydromys, 1 Dasyurus, 1 Phalanger, 6 Pseudocheirus, 1 Hyomys, 1 Dorcopsis, 2 Peroryctes. Tended traps and prepared specimens today. This morning the boys took up the mouse traps and 24 steel traps. They are to be reset tomorrow.

Weather: 6.00 - 9.00 overcast; 9.00 - 12.00 large shifting clouds with many breaks; 12.00 - 20.00 overcast with occasional opening, afternoon and evening rain.


213 rat traps, 5 steel traps - 0.

The natives brought in the following: 1 Pseudocheirus, 7 Phascogale, 4 Anisomys, 1 Mallomys, 4 Peroryctes.

Today tended traps prepared specimens. This morning my collecting boys set 186 mouse traps and 17 steel traps in the forest north of camp.
Weather: 6.00 - 10.00 overcast

10.00 - 12.00 broken clouds

12.00 - 20.00 overcast with light intermittent rain.
December 1, 1938. Bele River.

213 Rat traps, 186 mouse traps, 22 steel traps: 1 Melomys. The natives brought in the following: 2 Phalangers, 2 Uromys, 6 Anisomys, 2 Phascogale, 1 Pogonomys. Brass shot 1 Phascogale #7040.

Today's routine as usual tending raps and preparing specimens. I examined the trap line which the collecting boys set out yesterday. It is a well set line beginning in the thick second growth in open forest areas, through sama forests with rattan and bamboo undergrowth, on steep forest slopes with moany roots and logs and finally into the brushy second growth.

Weather: 6.00 - 14.00 overcast with occasional break, light rain in morning; 14.00 - 16.00 clouds large openings; 16.00 - 20.00 overcast, light rain.


186 mouse traps, 213 rat traps, 22 steel traps. 1 Hydromys, 4 Melomys. The following were brought in by natives: 2 Pogonomys, 19 Melomys, 9 Stenomys, 8 Anisomys, 1 Peroryctes, 1 Phascogale, 2 Pseudocheirus, 1 Phalanger, 1 Dactylonax, 1 Mallomys.

This morning tended traps and prepared specimens. This afternoon went out along the main track to the valley. About 1 km. distance is a large sink hole into which a tree was cut and so arranged as to permit a man entering. I plan on returning tomorrow with flash lights and look for bats.

Weather: 6.00 - 16.00 generally clear with large shifting clouds. 16.00 - 20.00 overcast, no rain.

186 mouse traps, 213 rat traps, 22 steel traps: 1 Phascogale #7092.
The following were brought in by nat ves: 5 Phascogale, 1 Dasyurus,
1 Hydromys, 1 Pogonomys, 2 Melomys, 1 Uromys, 2 Anisomys, 4 Peroryctes,
2 Phalanger, 2 Pseudocharus.

This morning returned to the sink hole, a pit of some 50 feet in depth and
with a large lateral room (50 x 30 x 30 feet). There were no signs of
bats although the walls, crevices, and floors were searched for signs.
This morning at about 10.45 Capt. Teerink and transport returned from
the Grand River.

Weather: 6.00 - 9.00 overcast; 9.00 - 14.00 scattered clouds; 14.00 -
20.00 overcast light continual rain.


No traps. All the traps were taken up yesterday. The natives brought
in the following: 3 Phalangers, 1 Uromys, 10 Anisomys.

Today has been spent in packing specimens and barrong for the trip down
tomorrow. The following is a list of my equipment as packed and ready
to go: 3 sacks of traps 20 k

1 sack of traps and alocholics 20 k

Box 46 Mammals 10 k
Box 45 " 9 k
Box 11 " 9 k

1 can shells 5 k.

Swag 8 k?

Box 3 collecting box 15 k

1 sac flat skins 9 k

1 sack flat skins 2 k

Barrong 20 k.

Weather: 6.00 - 12.00 clear with occasional clouds
12.00 - 20.00 overcast rain.
December 5, 1938. NE of Lake Habbema. 27 km. NE of Lake Habbema.

No traps.

This morning broke camp. The entire party: convicts, Dyaks, soldiers and European personnel moving toward our next camp on the Grand River. Our route has been along the southside of the river, well up on the slope, through the upper cultivated areas of the native path, a well worn path which apparently is the main route toward the valley. We left camp at 6.50 and after travelling slowly stopping frequently to wait for carriers and a 1/2 hour out for lunch arrived in camp by 12.15. The remainder of the day was spent about camp buying food and resting.

Weather: 6.00 - 14.00 clear with occasional cloud.

14.00 - 20.00 overcast, rain.

December 6, 1938. 40 km ENE of Lake Habbema.

No traps.

Broke camp this morning at 6.30 continuing along the upper south slope of the Bile River. At about 10.00 o'clock we came out of river slopes and on to the spurs leading out into the Grand Valley. Following these spurs down to the flat and then in a southerly direction over the relatively flat valley. Our camp this evening is along one of the small streams which flow from the hills through the valley to join the Grand River. The flora, has been one of cut over area, cultivated garden, and abandoned grass land gardens.

Weather: 6.00 - 14.00 clear, few scattered clouds over valley.

14.00 - 20.00 overcast, no rain.


Left the camp in central Grand Valley this morning and arrived here this afternoon at about 1.00. There is a good camp established near the edge...
of the river in an old garden clearing. This area here has at some time or another been a garden. There are cultivated fields some 10 minutes distance from here. But the thing of most interest is that none of the original forest remains. All has been cleared even up on the rocky hill slope well up near the crest.

The country is now second growth grassland with casuaries and shrubs along ditches and long abandoned garden areas.

Weather 6.00 - 12.00 scattered clouds

12.00 - 20.00 overcast, rain.

December 8, 1938. Grand River.

No traps.

Today spent in camp. A day of rest and letter writing.

December 9, 1938. Balim River.

No Traps.

1 Melomys brought in by natives. 1 Rattus in by Brass.

This morning set 199 rat traps. The line begins along a ditch bank overgrown with weeds and continues up a small wash with cane grass, this across a flat with cane grass, coarse grass, and scattered shrubs, then along another wash with quantity of cane grass and brush forming dense thickets, and finally along a stone wall bordering a grassy abandoned garden patch. There still remain 185 mouse traps and 28 steel traps.

This afternoon went along the west bank of the river down to the bridge and then back through the abandoned cultivated fields of the upper valley edge. Was searching for a good trapping area but with little success.

Weather 6.00 - 17.00 clear with occasional shifting clouds.

17.00 - 20.00 overcast, rain.

199 rat traps - 11 Melomys (2 discarded, 1 Stenomys, 2 Rattus (1 discarded). This morning tended traps, prepared specimens and set 185 mouse traps. This trap line follows the river bank for about \( \frac{1}{2} \) km and then along the lowland ditches and shrubs. The vegetation varies from grass, cane, to shrubs. This afternoon went up the river some two to three km. Here there is one patch of river bank forest which has not been disturbed by pigs and man for some while. It may prove to be a good trapping locality.

Weather 6.00 - 14.00 clear with occasional cloud; 14.00 - 20.00 overcast, rain.

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185 mouse traps, 199 rat traps - 18 Melomys, 2 Rattus, 1 Stenomys. Tended traps and prepared specimens this morning. This afternoon Dr. and I went up through the canyong wash west of camp. This wash is one of the most conspicuous things in the region. Erosion here has been very rapid and recent forming a large alluvial fan at the mouth of a large wash or canyon into which the earth and rocks from the slopes are sliding in. We scrambled up through the wash and out over a shoulder to the south and back to camp through a bit of forest of the side hill. It has been cut over by natives and the ground vegetation changed or destroyed by pigs.

Weather: 6.00 - 14.00 scattered shifting clouds.

14.00 - 20.00 overcast light evening rain.

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December 12, 1938. Balim River.

181 mouse traps, 199 rat traps - 9 Melomys, 1 Stenomys, 1 Rattus. The Pipistrellus was shot yesterday evening above camp.

This morning tended traps and prepared specimens. This afternoon went up the river for a short way, but was driven back by the heavy rain. The area
is garden land, in cultivation, except for a small strip at the edge of the steep river bank. This strip is vegetated with casurina and an undergrowth of cane grass or shrubs.

Weather 6.00 - 13.00 unsettled overcast; 13.00 - 20.00 overcast, heavy afternoon rain.


181 mouse traps, 199 rat traps: 2 *Rattus*, 2 *Melomys* (1 discarded), 1 *Stenomys*. 2 *Syconycteris* were shot yesterday evening. 1 *Eudromicia* was brought in by a Dyak (See further notes).

This morning tended traps prepared specimens. A note should be made here about dogs. At the two camps above, the 2800 and 2200 m. camps, no signs were seen nor were there apparently any about the native villages. Here, however, tracks and dung have been seen along the native trails and a single individual seen in one of the villages. This beast was small about 300 mm. high, 800 total length and 350 tail length. These figures are estimations rather than actual measurements. The color was that of black and white in broad marks, the latter color predominating the anterior half. The tail was held in a slight upward curve, not looped. The ears were erect and pointed. The hair moderately short and with a general slick shiny appearance. It was a nervous beast apparently and at an approach ran away through the gardens only to be brought back by its attentive owner. At a distance of 10 ft from us it bit the man carrying it and again escaped off through the pig pens and gardens. It was a nervous cowering beast. Apparently it is highly prized by the natives although I do not know what purpose it serves.

The following were brought in by natives: 23 *Rattus*, 8 *Melomys*.

This afternoon was spent in a hunt down the river to the low ridge, the other side of the stream, a distance of about 2 km. Nothing of note was seen.
Weather 6.00 - 14.00 unsettled many clouds, clearing overhead in late morning; 14.00 - 20.00 overcast, light rain.
The river is very high, the highest I have seen it.

181 mouse traps, 189 rat traps - 3 Melomys (1 discarded). The following were brought in by natives: 1 Melomys, 9 Rattus.
This morning tended traps and prepared specimens. This afternoon reset 189 rat traps. The line now is along the edge of the wash in a patch of second growth forest on the lower hill slopes. Traps are set in grass and shrubs above the high water mark at either side of the stream or wash.
Weather: 6.00 - 12.00 unsettled
12.00 - 16.00 overcast no rain
16.00 - 20.00 overcast, rain

December 15, 1938. Balim River
181 mouse traps, 189 rat traps - 5 Melomys, 2 Rattus (1 discard). The following were brought in by natives: 1 Melomys. The Syconycteris was shot by collector yesterday evening.
This morning tended traps and prepared specimens. This afternoon visited three of the native villages in the vicinity in search of a large male pig. They refuse to sell.
Weather 6.00 - 9.00 overcast.
9.00 - 16.00 broken, large clouds about mountains.
16.00 - 20.00 overcast, light rain.
15


181 mouse traps, 189 rat traps: 7 *Melomys*, 3 *Rattus*. The following were brought in by natives: 3 *Melomys*, 9 *Rattus*.

This morning tended traps and prepared specimens. This afternoon reset the mouse traps (168) to the low hill slopes in the east side of the river above the rapids. Here the hill slopes are clothed in lime stone rocks, low brush, and grass. It is a dryer, more rocky area than heretofore trapped in.

Weather 6.00 - 20.00 overcast, occasional small opening, light rain in PM

December 17, 1938. Balim River.

168 mouse traps, 189 rat traps - 2 *Melomys*. 1 *Sus* bought from natives.

1 *Pipistrellus* shot yesterday evening.

This morning tended traps and prepared specimens. This afternoon visited several native villages in hopes of purchasing a pig. We were unsuccessful with pigs but did buy a dog, the individual which I described a few days ago. There was a big dispute among the natives and we may find it necessary to sell it back to them.

December 18, 1938. Balim River.

168 mouse traps, 189 rat traps - 3 *Melomys*, 3 *Rattus*.

This morning packed equipment to be taken to Hollandia and tended radio. This afternoon went in search of a large male native pig. They still refuse to sell.

This morning about 9.30 the Guba arrived, having first delivered food, etc. to the Idenburg. It stayed here only long enough to take on our cargo of specimens, 10 men, etc. and then returned to Hollandia. Tomorrow they are scheduled to make a similar trip in and begin the freighting from our camp here to the Bernhard Camp on the Idenburg.
Weather 6.0 - 12.00 broken with clouds about mountains, clear overhead
12.00 - 16.00 broken clouds; 16.00 - 20.00 overcast, light rain.

List of specimens, etc. sent to Hollandia as follows:

Box 46 Mammals 10 kg

- 45 Mammals 9
- 11 Mammals 9
- 49 Mammals 10½
- 27 Mammals 9½
- 22 Skulls, etc. 14
- 52 Mammals 9

Brown sack flat skins 8

Rice sack " " 5

- 1 can skulls 5
- 1 bundle arrows 2½
- 1 bundle bows 3
- 1 box native articles 12
- 1 bundle spears 9½


168 mouse traps, 189 rat traps - 1 Melomys. Winiopteris was shot last
evening.

Today was spent in packing and preparing equipment to be sent to the
Idenburg. The Guba made threetrips this morning with over half the
men and equipment from the camp.

My equipment consisted of the following:

- 1 sack barong 16 kg.
- 1 sack steel traps 10½ kg.
- 1 Delco motor 21

Weather (See radio log) 6.00 - 16.00 clear overhead with clouds about
mountain and shifting over valley; 16.00 - 20.00 overcast with late rain.
December 20, 1938.

This morning was spent in the final breaking of camp. Two loads of 16 men and approximately 300 kg was laid out. The weather broke early and the first load including Rand-Brass was taken out easily. By mid-morning, however, the Northeast wind had set in and by the time Guba arrived for the second and last load it was blowing a good breeze. The crew were unable to tie up at the buoy and their own anchor would not hold against current and wind. The plane was continually being blown into the bank by the strong wind. They finally got the plane into the bank some 1/2 mile below camp. As quickly as possible we brought the equipment down, loaded and shoved off. There were several minutes then that I was wondering whether or not they would be able to get the plane free of the bank. Such was done and we were soon in the air. At the Bernhard Camp we discharged cargo and Bras, Rand, Tox, Huls van Arken, my collecting boy, Tox's collecting boy and myself left for Hollandia.

We arrived in Hollandia shortly afternoon, had lunch, and the rest of the day was spent in rest and talk.


These days were spent in Hollandia resting and entertaining ourselves as we each saw fit. We did, however, do one important bit of work, and that is the packing of the specimens for shipment to New York. There were 11 cases in all bound for the Amer. Mus. Nat. Hist. and three for the Arnold Arboretum, Boston, Mass.


We arrived in camp this morning after some 1/2 hr. spent waiting above the cloud bank for the weather to break or the ceiling to lift. This camp is what might be called par excellent. It is by far the most elaborate
and comfortable of all of our camps. It was not shown in its best light, however, for at present the water has flooded over half the camp. There are only two rooms above the flood and that is the dining room and our personal quarters. The barracks is so deep under water that the soldiers were forced to move out and are now busy building bridges and higher barracks.

January 4, 1939. Bernhard Camp
This day was spent in packing equipment, barong, provisions, etc. for. I have 4 black boxes #58, 17, 3, 4 and a sack of traps. February and March food supplies were packed as well as my collecting equipment for the next five months. The radio was tested. It was found that neither the transmitter nor receiver functioned although both have been recently overhauled at Hollandia. The vibrators are out of order. They have been repaired and the sets will be packed tomorrow.
This evening 6.30 went out in a prow following along the jungle edge of the ox-bow lake. The water is very high so that the flora of the jungle is under water. At the top of one of the trees bordering the lake was an adult Phalanger with a juv in pouch. It was easily seen among the green thin foliage although the only movement was that of its head. When shot it turned about and proceeded to climb (head first) leisurely down the tree to the thicker second story branches. Here it was killed and although apparently lifeless still clung to the branches. One of the Dyaks brought it down after a difficult climb.
The river is now the highest it has ever been. It came up several inches last night and continued to rise gradually until about mid-day. This evening it started to fall and we are all hoping that by tomorrow it will be much lower.
January 5, 1939. Bernhard Camp.

The two Phalangers were shot yesterday evening (See notes for January 4).

Today was spent in packing and rest. This evening took a canoe out along the lake. Saw nothing of interest in the way of mammals. Came back in rain.

The water level is subsiding gradually. It is down about 4 or 5 inches today.

January 6, 1939. Approx. 10 km W. Bernhard Camp.

This morning at 7.00 we left the Bernhard Camp with the transport. Our route was first by prow to the upper edge of the flood plain which is at present flooded by the high waters of the Idenburg. Then along the upper flood plain through the rain forest for about 2 km. and then up along one of the spurs leading over the first range bordering the Idenburg Plain. At a point where we crossed the ridge the alimeter read about 900 m. Then we followed along another spur up and down, more of the latter, to Aracaria Creek. A nice little river some 25 ft. wide flowing toward the south. Here we had lunch and then on along another spur rising gently to the present camp site. We arrived here at about 2.00 in the afternoon. One hour was taken off for lunch.

The vegetation along the route has been a changing one, first that of the rain forest which reached an altitude of about 750 m. and then gradually changed to a mossy forest (very different from mossy forest of the 2800 m. camp). This forest is — has changed to one with less moss and more rattan and undergrowth. For description of altitudes and forest composition see Brass's notes.
January 7, 1939. 15 km. SW Bernhard Camp

Left camp this morning 6.45 and arrived here this afternoon about 4.00. It has been a long day of travel up and down following the crest of the ridge between the Idenburg and the Rivers. Set up the radio this afternoon. All is in readiness for tomorrow morning's contact.

January 8, 1939. 15 km. SW Bernhard Camp.

Remained in camp today doing odd jobs and resting.

Bats were seen flying again tonight 2 sp. Their flight is beginning about 6.45 PM.

Checked January store and found the following discrepancies: -2 cans sausages, -3 cans roast beef?, -1 can flour, -1 can coffee, plus 5 lb. butter, -2 cans jam, plus 1 jar peanut butter, -1 tin dried apples, plus 5 tin dried prunes, -1 tin canned fruit, -1 tin cheese, -3 tins beef drippings, -1 bottle curry powder, -1 canned vegetables, plus 18 pkgs matches, -2 cakes sunlight soys, -3 rolls toilet paper, plus 2 bottles whisky, -2 bottles creoline, - 2 gal. kerosene, - Rand's and Brass's tobacco, -8 gal. gasoline, -1 tin rice. We have Yancey to thank for this addition and subtractions.

January 9, 1939. 15 km. SW Bernhard Camp.

This morning set 232 rat traps. The line starts near camp and goes to the west along the north side of the hill slope. It crosses several small streams and ridges and continues on to the main ridge. This is followed up near the crest of the hill east along the crest of the hill and to the main trail back to camp. The region is that of mossy forest. This afternoon prepared traps for tomorrow setting, changed locality of aerial and checked the monthly stores.
This evening bats were seen flying at 6.30. Two sp. seen on a bat which forages about 30 ft. above the ground (half way up the large trees. The other a smaller bat which forages about the thick leafly foliage of the dense second story growth.

After dinner went out with a flash lamp. Was unable to shine any eyes. Saw three small bats flying low through the forest.

January 10, 1939. 16 km. SW Bernhard Camp.

232 traps - 2 Melomys. Checked part of the mouse traps which were set today: 1 Stenomys. Last evening a soldier took 1 Pseudocheirus in the camp. Three birds.

This morning tended traps and prepared specimens. The boys set out 193 mouse traps and 10 steel traps. The afternoon I set out the remainder of the steels (18); hunted a short time in the forest east of camp; and rested.

The traps were set at either side of the ridge crest east of camp. The line extends through the forest down the ridge on one side some ½ mile or less and back along the other side of the ridge crest.

This evening watched for bats and also hunted for an hour or so by flash light. Little success. Saw some six or eight bats but was unable to shoot them. Saw 1 Melomys or Eudromicia by lamp light but after shooting it was unable to find it in the litter.

Weather today - Clear with occasional clouds this morning, afternoon mist, evening light rain, overcast.

January 11, 1939. 15 km. SW Bernhard Camp.

193 mouse traps, 232 rat traps, 28 steel traps - 10 Melomys (3 sp.), 4 Stenomys, 1 Phascogale, 2 Pseudocheirus (1 juv.), 1 Phalanger, 1 Peroryctes, 3 birds.
This morning tended traps and prepared specimens, this afternoon prepared specimens. The 2 Dyak collectors were out all morning hunting, but returned with only one bird. This evening saw four bats.

Weather: Alternate sunshine, mist; clouds. Weather unsettled with changing wind from North to South. This evening cold, light rain.

January 12, 1939. 15 km. SW Bernhard Camp.

193 mouse traps, 233 rat traps, 28 steel traps: 1 Lorentzimys, 3 Stenomys (1 discarded), 6 birds.

This morning tended traps and prepared specimens. This afternoon went hunting west along the ridge from camp. No mammals seen. There were numerous runways large and small some ½ kilometer out from camp.

Today Rand brought up an objection to the of "R" on my labels. In all cases where I have used it it stands for "river". Hereafter it shall be written out as requested.

Weather: Mist with occasional openings showing sun or high overcast.

Saw four bats this evening. One was apparently a different sp. at least it foraged in a different manner - a high slow flight among the upper foliage of large trees.

January 13, 1939. 15 km. SW Bernhard Camp.

193 mouse traps, 232 rat traps, 28 steel traps - 5 Melomys, 1 Stenomys.

This morning tended traps, prepared specimens and developed pictures. This afternoon was spent in hunting along the ridge which goes to the Saweli River. Nothing of note was seen.

This evening eight or more bats were seen. Flying through the mist. The low swift flying species was the most numerous.

Weather: Intermittent mist, mixture cloud overcast, and sunshine.
January 14, 1939. 15 km. SW Bernhard Camp

193 mouse traps, 232 rat traps, 28 steel traps: 3 Pseudohydromys, 1 Melomys, 3 Stenomys, 1 Dorcopsis, 1 Peroryctes. The bat, 1 Miniopterus was taken by Althoff last evening while catching insects about the lamp. 1 Phascogale was shot this morning by Rand.

Note: The genus Pseudohydromys has previously been taken at this camp and incorrectly catalogued and accounted for as Melomys. The catalogue I shall correct but the genus accounts shall remain the same with a note indicating incorrect determination. I am not sure that this little Hydromine is a Pseudohydromys but it apparently is closer to that than any other described genus and so that it will be called until museum determination.

This morning tended traps and prepared specimens as well as removing the rat traps (227). This afternoon reset the rat traps. The line begins below the camp in the south slope. It follows the small stream, down for some three or four hundred yards and then to the west over several small ridges and streams, through a flat shelf on the hill slope then up the slope to the north and over the crest. Although — habitats in which the traps are set are numerous the general area is mossy forest with litter, undergrowth and second story vegetation.

This afternoon the Captain, Dr. Huls and the transport arrived all in good condition and spirits.

Weather: Intermittent sunshine and mist this morning. This evening from 3.30 to 7.00 there was a very heavy rain.

January 15, 1939 15 km. SW Bernhard Camp.

193 mouse traps, 227 rat traps, 28 steel traps – 1 Phascogale, 6 Melomys, 8 Stenomys.
This morning tended traps. A rather long and tedious process for each must be rebaited after the heavy rains of last night. Also prepared mammals. This afternoon prepared specimens. Rain prevented field work.

No bats were seen this evening by me. Fog and mist.

Weather 6-10 clear with small shifting clouds. 11 until evening overcast with intermittent rain. Evening heavy mist.

January 16, 1939. 15 km. SW Bernhard Camp.

193 mouse traps, 227 rat traps, 28 steel traps - 5 Melomys, 4 Stenomys, 1 Phascogale, 1 Pseudohydromys.

This morning went up with Rand, Brasse, van Arken - Teerink to look at the next proposed camp site. It is about two hours walking from here along the ridge to the west. Alt. 210 m. (approx.). It is to be situated on the rather small tip of small peak. The vegetation about the top is thick brush and moss, quite different from any habitat near here. As distance of some half hour further on is another and higher hill top on which there is a growth of timber mixed with mossy forest which is quite different again. These two habitats would be interesting and profitable to work.

The boys took care of the trap lines this morning and prepared the specimens.

This afternoon reset 192 mouse traps and 11 steel traps. The line now begins at the top of the hill west of camp (80 m. above camp) and continues westward just north of the trail which follows the top of the crest. A distance of about 2/3 km. out the line doubles back towards camp below the portion of line already set.

Weather: Morning mostly clear with slight mist. Afternoon mist and rain from 2.00 to 9.00.
January 17, 1939. 15 km. SW Bernhard Camp.

192 mouse traps, 227 rat traps, 28 steel traps—2 Pseudochydromys, 5 Melomys, 7 Stenomys, 1 Phascogale, 1 Bird.

This morning tended traps and prepared specimens. The two collecting boys were out hunting. Returned this afternoon with only two birds. This afternoon finished preparing specimens.

The following is an estimate of the number of carriers needed to my equipment to the next camp: 5 traps, 5 radio, 2 personnel, 1 collecting box, ½ tent, 13½ carriers needed.

January 18, 1939. 15 km. SW Bernhard Camp.

192 mouse traps, 229 rat traps, 28 steel traps: 1 Phascogale, Melomys, 2 Stenomys.

This morning tended traps and prepared specimens. Boys were out hunting. This afternoon spent about 1 hour hunting east of camp. Returned early because of heavy mist and rain. This evening watched for bats. Saw six or eight. My boy shot one of the low flat flying species.

Weather: mist and rain.

Lieut. van Arken left this morning with transport to establish the 2100 m. camp. Tox is planning on going up there on the twentieth. Dr. Huls is recovering from his attack of malaria.

January 19, 1939. 15 km. SW Bernhard Camp.

192 mouse traps, 229 rat traps, 28 steel traps: 1 Melomys, 2 Stenomys, 1 Pseudochydromys, 2 (1 juv.) Phascogale, 2 (1 juv.) Peroryctes,
4 (3 juv.) Dasyurus, 1 Maniorterus shot last evening by collecting boy. 1 Pseudocheirus shot this morning by Rand's collecting boy. This morning tended traps and prepared specimens. This afternoon spent several hours hunting along the stream south of camp. No mammals were seen.

No bats seen the evening. Fog and mist.

Weather: Mist with occasional clearing showing high overcast or sun.

January 20, 1939. 15 km. SW Bernhard Camp.

192 mouse traps, 229 rat traps, 28 steel traps: 2 Pseudohydromys, 2 Melomys, 1 Stenomys.

This morning tended traps and prepared specimens. This afternoon constructed a drying room for specimens. The specimens are drying very slowly. To prevent them molding and to clear the pinning boards I am going to make use of the lamps during their usual evening run.

The two Dyak collectors reset 17 steel traps. The line begins near the top of the knob west of camp and goes down the ridge to the south.

Weather: Morning up to 11.00 was quite clear with occasional clouds and mist. The afternoon heavy mist. Last night there was a very heavy rain.

This morning Dr. Huls left with transport for the Bernhard Camp. Dr. Toxopeus also left this morning for the 2100 m. camp. He plans to remain there until the 26th.

January 21, 1939. 15 km. SW Bernhard Camp.

192 mouse traps, 229 rat traps, 18 steel traps: 2 Melomys, 1 Phascogale, 1 Pseudohydromys, 1 Peroryctes.

This morning kept radio schedules, tended traps, and prepared specimens. The three Dyaks spent time hunting. The rainy afternoon spent in camp.
No bat hunting.

Weather: Morning clouds with occasional breaks. Afternoon mist and rain. This evening there is a heavy rain and wind from the north.

January 22, 1939. 15 km SW Bernhard Camp.

192 mouse traps, 229 rat traps, 18 steel traps - 1 Melomys, 1 Pseudohydromys, 1 Stenomys.

The early morning was spent at the radio giving reports of weather to the gold mining plane which was coming to Hollandia from the Degoul. The plane took off and after an hour out returned because of bad weather. About 9.00 I went out hunting and remained out until 12.00. Saw nothing of real interest. Spent most of the time cutting down pandanus palms and looking into parrot holes for mammals.

This afternoon spent in camp taking care of the birds. Rand has an attack of fever. He has been mildly ill for the past 3 or 4 days but today he is much worse, unable to eat or move about.

January 23, 1939. 15 km SW Bernhard Camp.

192 mouse traps, 229 rat traps, 18 steel traps - 1 Peroryctes, 1 Pseudohydromys, 1 Stenomys, 1 Melomys, 1 Lorenzimys (being kept alive). One Phascogale shot by Rand's collecting boy.

This morning tended traps and prepared specimens. This afternoon took care of Rand's birds he not feeling capable of doing so. He is a bit cheerier, is about and eats a little (toast and tea).

This morning 229 rat traps were taken up but were not reset due to the rainy weather.

The weather today except for a few hours this morning has been mist and rain. The heavier rain coming this evening.
January 24, 1939. 15 km. SW Bernhard Camp

192 mouse traps, 28 steel traps - 0.
This morning prepared the captive Lorentzimys which died last night and kept the radio schedule. The collecting boys set the 228 rat traps along the north side of the ridge west of the hill from camp. This afternoon was raining and so no field work. Took care of Rand's birds. He is still quite ill, unable to keep food on his stomach. He has no temperature nor pains. He apparently possesses only an upset stomach and a weak condition from his three day fast.

Weather: Morning fairly clear with occasional light mists and clouds up until 11.30. From 11.30 on mist and rain.

January 25, 1939. 15 km. SW Bernhard Camp.

191 mouse traps, 229 rat traps, 28 steel traps: 1 Melomys, 1 Pseudohydromys, 1 Stenomys.
This morning tended traps, kept radio schedule, and prepared specimens. The collectors reset 190 mouse traps on the mid slope of hill west of camp. No line is on the south facing slope. This afternoon remained in camp tending Rand's birds and waiting for the mist to clear up. Rand is brighter today.

Teerink returned from the 2100 m. camp with a little flower in his hand (for Brass). Reports that Tox has been ill with malaria, better today.

Weather this morning was clear with occasional light mist up from the Idenburg. This afternoon there has been a heavy mist.

January 26, 1939. 15 km. SW Bernhard Camp.

190 mouse traps, 229 rat traps, 28 steel traps: 4 Pseudohydromys, 2 Peroryctes (1 juv.), 2 Melomys, 5 Stenomys.
This morning took in 189 mouse traps and 11 steel traps and one rat trap, prepared specimens, and checked equipment for the collecting boys to use in the camp below.

This afternoon Marcus and one Dyak, Banding, left with the transport for the camp below. This is one of Toxopeus camp at which he will catch butterflies for one week. These two boys have the equipment and the ability to take care of the specimens but whether they do or not is up to them. All we can do is wait and see what the results of their week's work is like.

The number of bats seen tonight were two. These foggy nights there are very few to be seen about.

Weather: This morning there was a moderately strong SE Wind which kept the camp free of mist. Large broken clouds with occasional sun. This afternoon wind was from the North with mist.

January 27, 1939. 15 km. SW Bernhard Camp

228 rat traps, 17 Steel traps - 1 Melomys, 1 Phascogale.

This morning's rain delayed the tending of traps until late. Part of that time was spent with radio schedule. The gold mining airplane or Grummond, is still making surveys of the Grand Valley and upper Idenburg area.

This afternoon went for a hunt southeast of camp going well down the slopes. It was a dull afternoon and little even in the way of birds moving.

Saw three bats this evening. There are few less bats flying about in the evenings now than during the first few days after our arrival here. This is perhaps due to change in climate, to clearing of the ground which they have found unsuitable for feeding, or to the presence of camp and a desire to avoid it.
This morning about 6.45 Capt. Teeink with transport left for the 1500 m. camp. This he is to put in readiness for our arrival sometime about the 11th of Feb.

January 28, 1939. 15 km. SW Bernhard Camp.

228 rat traps, 17 steel traps - 1 Melomys, 1 Peroryctes.
Tended traps, measured specimens and visited the 1500 camp of Tox this morning. The camp is to the south of our present camp and along the same stream whose head waters are at our camp. It is here that two of my collectors are trapping although they caught nothing in the traps last night. I checked the trap line and found that it is well placed. Spent 1½ hours looking for the — which Tox said occurred along the stream.
Secured a single individual near the waterfall that is in the soft chaperell which occurs along the stream side. Tox was not in camp - the soldiers said he had gone with a patrol down the ridge toward the native gardens.
Remained in camp this afternoon because of bad weather.

January 29, 1939. 15 km. SW Bernhard Camp.

228 rat traps, 17 steel traps - 1 Melomys, 1 Pseudohydromys, 2 (1 juv.) Peroryctes.
This morning tended traps, prepared specimens and wrapped all dry specimens in paper in preparation for packing. To dry specimens here it has been necessary to make a small oven like affair and keep lamp burning underneath night and day for the past four days. The first drying in this afternoon in one of Brass' ovens. This afternoon spent in camp.

Weather: This morning no mist: clouds broken and occasional sunshine.
Afternoon mist and rain. Some type of weather yesterday.
There were a number of bats seen this evening flying about soon after sundown. Their increase in numbers may be due to lack of rain or mist about at that time. There were 10 or more individuals seen of 2 or 3 sp.

January 30, 1939. 15 km. SW Bernhard Camp.

228 rat traps, 17 steel traps. 1 Melomys, 1 Peroryctes.
This morning collect in the traps. 227 rat traps, 17 steel traps, in preparation for the trip to the upper camp tomorrow. Prepared specimens. The remainder of the day was spent in packing equipment. Weather high broken overcast in morning. Mist and light rain afternoon.

January 31, 1939. 18 km. SW Bernhard Camp.

No traps.
Broke camp this morning at 7:45 and with 20 Dyak carriers Rand and I left for the 2100 m. camp. Arrived here some 1½ to 2½ hours later. Brass is coming up tomorrow. Uneventful trip up. Van Arcken has built up a good but small camp. Actually there is little room on the top of the hill. To either way, north or south is a steep hill slope vegetated with brush. Consequently the camp is strung out along the ridge top. Arrived in camp this morning in time to put up the antenna as well as set up and check the radio. This afternoon was spent in setting 143 rat traps. The line is on the north side of the ridge. It goes through the very heavy brush thicket which goes over the steep rocky hill top; through mixed brush and moss forest border, and into the thick moss forest itself. This latter habitat, the thick moss forest is much like the moss forest on the north slope of the hill west of the 1800 m. camp.

Weather: This morning when we left the 1800 m. camp it was in mist. There was mist most of the way up until shortly before reaching the 2100 m. camp.
Dear Richardson,

The large box of the last KPM contains tins for collecting to far as I can guess. The solitary tin is a middle tallow as I have not seen any mail. I shall advise to have the tin opened and to send all contents together with the tin to Bernhard Camp 1st flight of the Guba thence.

Yesterday I was down the river some half hour from camp. Missed some good berries and got a small new blue. Returning I found a fine palmetto and had it cut by the Papotes, ate a good deal of palm-ribs afterwards as a salad. This on the whole condition of my tender parts during the whole day may have been due to my terrible stomach caterhax yesterday evening, but I suppose the former. I feel well now though a little dizzy. Fresh food is not always preferable. Hell, I will get some other bananas for you.

Any news from Rogers, the Guba or Hollands will always be welcome.

Yrs. tops.
Here there was sunshine and a view out over the mist covered vallies. About 2.00 this afternoon it clouded over and light rain and mist.

Note from Dr. Toxopeus. Received January 28, 1939.

Dear Richardson:

The large box of the last KPM contains tins for collecting so far as I can guess. The solitary tin is a riddle so long as I have not seen any mail. I should advise to have the box opened and to send all contents together with the tin to Bernhard Camp 1st flight of the Guba thence.

Yesterday I was down the river some half hour from camp. Missed some good species and got a small new blue. Returning I found a fine palm tree and had it cut by the Dyaks, ate a good deal of palmite afterwards as a said. This or the wet condition of my underparts during the whole day may have been due to my terrible stomach catarrh yesterday evening, but I suppose the former. I feel well now, though a little dizzy. Fresh food is not always preferable. Well, I will get some other bananas for you.

Any news from Rogers, the Guba or Hollandia will always be welcome.

Yours

Tox.
February 1st, 18 km. SW Bernhard Camp.

143 rat traps—1 Melomys, 1 Stenomys.

This morning tended traps, set the remained of the 227 rat traps and prepared specimens. This afternoon set 17 steel traps. The rat traps were set on the south facing slope, through the brush, into the moss and lycopodium thickets and along the low heavily mossed forest of the steep rocky slopes. The steel traps were set about the hill west of camp. Combined with the moss forest is bamboo which tends to recede, or at least where it occurs there is less moss, more open forest surface.

Brass and transport arrived today.

The tents are being moved from the top of the ridge to a more protected spot some 50 yards west.

Weather. Last evening there was continual rain and a heavy wind particularly during the early evening. The day was one of mist and clouds with a poor view of the surrounding country. At evening however the lower Idenburg came into view.

February 2nd, 18 km. SW Bernhard Camp.

227 rat traps, 17 steel traps—2 Melomys, 2 Peroryctes, 1 bird. The Pseudocheirus was shot by Versteegh this morning. There was also a foot of a Peroryctes and another foot of a large rat such as Uromys. There was also a dog in one of the steel traps but it escaped while the Dyak collector was trying to pin it beneath a forked stick. According to them the color of the beast was brown and white, standing up about 16 inches high and a body length of about 2 feet. It was a J. I could hear it crying in the trap this morning from our camp, a distance of about 1/4 mile away from the trap in which it was caught. It was a whining howl not unlike that of a domestic dog. The area was that of an open bamboo thicket in a moss forest. It was on a trail and on a ridge near and leading to the highest hill in this vicinity.

This morning tended traps and prepared specimens. The Dyaks built six snares for large mammals.
This afternoon prepared specimens, went hunting and worked with the radio. I am having receiver trouble which is located somewhere in the vibrator circuit. Marcus and one of my Dyak collectors returned from the 1500 m. camp, the one established by Tox for butterfly catching. Following is a report on traps and specimens:

- **1 Peroryctes**
- **9 Melomys (2 sp)**
- **2 Phascogale (2 sp)**
- **4 Stenomys**
- **1 Lorentziomy**
- **17 mammals total**

**Total:**

- **189 mouse traps**
- **1 rat trap**
- **+11 steel traps**
- **201 traps set**
- **$\times 6$ trap nights**

1206 Total trap nights.

February 3rd, 18 km. SW Bernhard Camp

227 rat traps, 17 steel traps—1 Melomys, 1 Peroryctes

This morning tended traps and prepared specimens. This afternoon spent about camp because of bad weather.

A note from Teerink states that he and Tox with transport are going to the 1200 m. camp

Teerink's letter.

Dear Richardson:—

1354 excuses for my stupidity to forget the tin with formaline yesterday. I hope you've not got any trouble by that. We arrived yesterday very well with much rain and now Tox and I are nearly ready for our travel to 1200 m. camp. Tox's foot is not very seriously blessed.

Many regards from Tox and me to Rand, Brass, Van Arcken and yourself.

Sincerely yours,

3/2/39

Teerink.

Weather: Overcast during first part of morning, remainder of day mist and light rain.
This day there were 187 mouse traps, 1 rat trap and 10 steel traps set to either side of the ridge leading up to the top of the hill west of camp. The general area is that of mossy forest with bamboo undergrowth.

February 4th, 18 km. SW Bernhard Camp.
228 rat traps, 187 mouse traps, 27 steel traps—1 *Pseudocheirus*, 7 *Stenomys*.
This morning tended traps and prepared specimens. The collectors took up the rat traps, 223, and reset them in the bamboo undergrowth about the hill to the west. This afternoon spent in odd jobs about the camp. The bad weather prevented field work.

Weather—High overcast during morning. Early afternoon up to 3.30 mist and light rain. 3.30 on high overcast view of Idenburg River.

February 5th, 18 km. SW Bernhard Camp.
This morning tended traps and prepared specimens. Boys out making rotan snares (7) Afternoon ??? preparing specimens.
1 Phascogale shot this morning by Rand's collecting boy.
Weather; morning thin overcast with sun coming through at times. Afternoon mist and light rain. Rather strong wind from northwest.

February 6th, 18 km. SW Bernhard Camp.
This morning spent in tending traps and preparing specimens. The boys made 12 more snares. As yet the 25 snare nights have yielded nothing, one sprung and one chewed into. This afternoon finished preparing specimens and resetting the radio. The removal of the dining room fly because of the strong wind necessitated taking down the radio.
This morning a convict from the 1800 m. camp arrived saying that a tree had fallen
through their camp. Nan Arcken went down to see the extent of the damage and returned with the following information. Convict awakened by upheaval of roots beneath his bed. He awakened the camp and all out to watch the tree fall. It went across both of the military quarters and some limbs went through the dining fly. No one hurt and only slight damage to equipment.

February 7th, 18 km. SW Bernhard Camp

187 mouse traps, 224 rat traps, 17 steel traps, 25 snares—1 *Pseudohydromys*, 2 *Melomys*

This morning tended traps and prepared specimens. This afternoon took a short hunt down the ridge north of camp. A headache spoiled the afternoons work. Information over the radio announced that the Guba had returned from Port Moresby after nearly a month's sojourn there.

Weather: This morning up to 9 could see Idenburg plainly and mountains to south (Mt. Wilhelmina, etc.) After 9 clouds closed in on lower valleys, remaining bright here up to 3.00. After 3.30 mist and light rain.

February 8th, 18 km. SW Bernhard Camp.

187 mouse traps, 224 rat traps, 17 steel traps, 32 snares—3 *Pseudohydromys*, 3 *Stenomys*, 1 *Melomys*.

This morning tended traps. Two Dyaks went out hunting. Marcus prepared specimens. A Dyak and I went out hunting. Spent most of the time cutting pandan palms and looking through the dry drooping leaves for mammals. Found what appeared to be the roost of a parrot in the covered fork of the pandanus.

This afternoon hunted along the ridge north of camp. Saw nothing of interest relating to mammals except a fallen tree which had apparently been attacked by *Dactylona* or a *Dactylopsila*, the dry rotting wood having been broken out in chunks the largest of which was about 4 inches long and 3/4 inch through.

Transport of 4 Dyaks and 2 soldiers arrived today from 1200 m. camp.

Weather: This morning and again this evening were able to see the Idenburg. Remainder of day obscured by clouds. Light rain this afternoon.
February 9th, 18 km. SW Bernhard Camp.

187 mouse traps, 224 rat traps, 17 steel traps, 32 snares—1 Phascogale.

This morning I remained in camp for radio schedule. Also prepared the specimens. The boys collected traps and during the late morning caught reptiles. This afternoon went out with Dyak and dog about the moss at the bases of large trees in hopes of uncovering a mammal nest. In every case the ground was too moist and there are many runways honeycombing the subterranean layer for at least 2 1/2 feet in depth. The cover consists of moss and decaying organic matter supported by the many roots.

Weather: one of the best days here. High overcast part of the time, scattered shifting clouds over Idenburg and Mt. to south. No rain.

February 10th, 18 km. SW Bernhard Camp.

32 Snares—1 Uromys

This morning broke camp and moved to 1800 m. camp. The rains which began early this morning and continued until 8.30 AM made the breaking of camp unpleasant. The carriers after their trip up from 1800 m. were wet and cold; the equipment was wet and heavy and all in bad humor, especially Rand. Van Arcken and I remained in camp until the collectors returned from tending the snares and at 8.50 started down. Arrived at 1800 m. at 11.10 to find tents up and all in order. This afternoon checked weights of carriers loads and loafed.

February 11th, 15 km. SW Bernhard camp.

No traps.

Broke camp this morning and on the road down by 7.30. At lunch just the other side of the 1700 m. top and on to camp. Brass, Rand and Van Arcken, with their collecting and personal boys and four carriers and several soldiers remained at the 1500 m. point to collect for a day or so. I along with the transport came to the 1200 m. camp 2.30-5.00. Found a well-prepared camp ready for us to move in and begin on collecting. Sent mail and a few nick-nacks up to Brass, etc.
Tox came in this afternoon about 4.00. He reports very high water on the Idenburg making it necessary to shift camp as soon as possible. All available carriers and soldiers are to be recalled to help move. Plan on moving to Araucaria Creek 80% more mosquitoes, leaning trees and frogs are also adding to the discomfort of those in Bernhard Camp.

Weather good for travelling, overcast but no rain; at times light mist.

February 12th, 6 km. SW Bernhard Camp

No traps.

This morning, in fact most of the day, spent about camp getting things in readiness for collecting. This morning the boys set out 185 mouse traps, returning later to camp. This afternoon I set out about 80 rat traps, returning early to put radio in repair for evening schedule. This evening out shooting bats. Many seen, 20 to 30, flying 10 to 20 feet up from the forest floor. Would say that there would not be over two species, judging from manner of flight activities.

Rand came down from the 1500 m. camp. Reports that conditions of bird life there are much the same as those of the 1800 m. camp. Seems strange to me but must accept his word until I find out otherwise.

Weather: Early this morning sunshine and light overcast; about 9 it began to rain and continued intermittently until 12.00, followed by short period of sunshine; overcast and evening mist.

February 13th, 6 km. SW Bernhard Camp

185 mouse traps, 80 rat traps—0. 1 Emballonura shot yesterday.

This morning I tended traps, prepared the specimen and went out hunting along the stream. The boys set the remainder of the 223 rat traps. This afternoon spent about camp. The boys set the 27 steel traps.

Brass' letter 1500 m.

Dear Richardson:

Thanks for the stores. Nothing else needed, thanks.
Herewith a letter which was enclosed in Rand's mail.

Find we have here a big fly instead of my tent but it will do quite well.

Brass.

Teerink, Huls, Schroeder, Brass and Van Arcken arrived in camp today. The 2 latter from the 1500 m. Camp and the three former from Bernhard Camp. It is the most white men that have been congregated in any one camp since we left Habbema.

This evening shot bats and went jacking for a short time.

Weather overcast with occasional breaks.

February 14th, 6 km. SW Bernhard Camp.

185 mouse traps, 223 rat traps, 27 steel traps—3 Peroryctes, 1 Uromys, 1 Phascogale, 2 Melomys; 1 Phascogale and Mineopterus shot.

This morning tended traps and prepared specimens. This afternoon made equipment ready for Marcus and Bouding's trip to the Segie River. These two collecting boys are going with Tox tomorrow to one of his small exotic butterfly camps. They plan on being there for 14 days. The boys are taking 184 mouse traps, 10 steel traps, a gun and collecting equipment with orders to work the region out. They have the ability to make a good collection provided they bend their efforts to trapping and hunting.

This evening out shooting bats again. Secured one Emballonura. There are many bats flying about this camp, flights beginning about 6.30 and continuing on late as one can see.

There is a frog calling in these forests whose voice is much like a dog barking. Some here have already confused the two.

Weather overcast with frequent breaks letting the sun through. No mist; nights clear.

February 15th, 6 km. SW Bernhard Camp.

223 rat traps, 17 steel traps—1 Dasyurus, 1 Uromys. 1 Phascogale and 1 Emballon-
This contains a page with a lot of text and lines.
ura shot.
This morning tended traps and prepared specimens. This afternoon continued preparing specimens and built over for drying specimens. Feel rather low, with a headache and unable to walk without stumbling.
Tox with transport and my two collecting boys left this morning for their new camp on the Segie Tiverj; to be away for two weeks.
Weather; overcast with occasional breaks. No mist. Rain this evening.

February 16th, 6 km. SW Bernhard Camp.
223 rat traps, 17 steel traps—1 Rattus, 1 Melomys. Yesterday evening 2 Miniop-terus were shot.
This morning tended traps and prepared specimens. This afternoon went for a short hunt down ridge to east (no mammals seen). Returned to camp to take care of specimens, that is, packing of dry skins. Today the boys spent their time in hunting; no mammals, 5 birds.
A thing of interest to me is the fresh dung of a "cuscus" on a walk through camp. It was apparently deposited last night by an animal travelling through the trees of camp in spite of the rain which continued most of the night.
Transport returned from Segie River (Tox camp) and a small transport of 2 soldiers and 1 convict in today from Bernhard Camp with 2 cans of gasoline. Understand that bulk of this transport came only as far as Bernhard Camp.
Weather; Morning, short period of sunshine followed by mist which lasted until about 1. Mist cleared followed by high heavy overcast. Heavy rain last night.

February 17th, 6 km. SW Bernhard Camp.
223 rat traps, 17 steel traps.
Spent most of day in bed with malaria. Managed to prepare the specimens this morning.
Teerink, Huls, Schroeder and transport moved to Araucaria Creek where they plan to keep permanent quarters.
Note from Tox says all is well. Have contacted the natives there.

Weather; morning clear sunshine, afternoon overcast followed by heavy rains.

February 18th, 6 km. SW Bernhard Camp.
223 rat traps, 17 steel traps 23 snares—1 Echymipera, 1 Dasyurus, 1 Hydromys, 1 Phascogale.
This morning checked the snares and prepared specimens. This afternoon finished preparing specimens and checked the rat traps, concealing those where possible and baiting all.
All is well in camp. The fever that I have had for the past four days has practically vanished.
Weather: Morning alternate clouds and sunshine with the latter dominating. Afternoon overcast with very light rain. Evening clear.

February 19th, 6 km. SW Bernhard Camp.
223 rat traps, 17 steel traps, 36 snares—1 Melomys.
This morning tended traps, prepared the specimen and wrote letters. This afternoon went hunting down the track. Heard one plover sound as a cat in distress; could not find owner.
Versteegh, during his cutting of trees about this area, has twice seen bats. These he said flew out of fan palms when struck by the falling trees.
On another occasion a cuscus was seen escaping after having fallen with the tree. It was said to have a white belly.
Weather; mostly clear this morning, clouding up this afternoon. Rain this evening.

February 20th, 6 km. SW Bernhard Camp.
223 rat traps, 17 steel traps, 74 snares—1 Melomys, 1 Dasyurus, 1 Dorcopsis, 2 (juv.) Echymipera, 1 Emballopura shot.
This morning tended traps and prepared specimens. This afternoon finished taking
care of the mammals and wrapped and labelled Rand's birds.

This morning Rand left for the Bernhard Camp. The Guba and Archbold are scheduled to come in tomorrow and Rand has been requested to meet them. A note from Tox today said that all was well in their camp and that they have had no further contact with the natives. Weather: alternating sunshine and cloud, the former dominating.

February 21, 6 km. SW Bernhard Camp.

223 rat traps, 17 steel traps, 103 snares—2 *Melomys*, 1 *Peroryctes*. The two *Phascogales* and 1 *Emballonura* were shot.

This morning tended traps and prepared specimens. This afternoon spent preparing mammals and birds and spent part time resetting 149 rat traps. This line is set NE of camp along a ridge leading toward the Idenburg.

Weather: Early morning overcast, clearing for several hours and clouding up again with light rain forenoon. Afternoon overcast; evening heavy rain.

February 22, 6 km SW Bernhard Camp.

223 rat traps, 17 steel traps, 103 snares—0. The 1 *Phascogale* was shot. This morning spent preparing traps, preparing the specimen and developing picture. This afternoon reset 71 rat traps. Several carriers came in from Idenburg today. A note from Rand said he was staying the evening at 800 m. camp, due to upset stomach.

Shot at bats as usual this evening.

Out jacking from 7.45 to 10.15. Saw bats only. One large fruit bat seen several times. Can be detected in forest by its flapping of wings against the tree, probably as it changes feeding location on the same tree. Two individuals seen and several more heard.

A note from Tox says he is well and happy and that Marcus has obtained a *Loxozymys*. 
February 23, 6 km. SW Bernhard Camp.
221 rat traps, 17 steel traps, 103 snares—1 Dasyurus, 2 Rattus, 4 Melomys.
This morning tended traps and prepared specimens. This afternoon completed preparation of skins.
This evening shot bats; rain prevented jacking.

February 24th, 6 km. SW Bernhard Camp.
221 rat traps, 17 steel traps, 116 snares—0. The 2 Emballonura shot yesterday.
This morning tended traps, prepared the specimens, developed pictures. This afternoon went for a hunt on one of the ridges down towards the Segie River.
Saw little in the way of bird life and mammals (mist).
Weather: Overcast and mist most of day; small breaks this forenoon.

February 25, 6 km. SW Bernhard Camp.
221 rat traps, 17 steel traps, 134 snares—1 Uromys, 2 Phascogale, 2 (juv.) Dorcopsis
This morning tended snares and prepared specimens. This afternoon continued preparation of specimens. The boy today set 20 snares and rechecked the rat traps.
A note from Tox says he and party are all OK and that Marcus is getting several good things in traps.
Teerink, Schroeder and Dr. Huls in today reporting all in well at Araucaria Creek camps. I sent with Teerink an order for food sufficient for 3 Europeans up to and including 6th of March.
Watched for bats and went jacking in the evening but without results.
Weather: Early morning broken clouds, remainder of day solid overcast.
February 26, 6 km. SW Bernhard Camp.

221 rat traps, 17 steel traps, 154 snares—1 Melomys.
This morning tended traps, prepared the specimen and developed pictures.
Afternoon went in search of new trapping locality along the ridge above camp.
Soldiers returned from Tox's camp today saying all was well. Marcus is reported as having caught "less than 40 mammals".
Weather: Overcast and light rain in early morning; afternoon breaks in overcast and occasional sunshine; late afternoon, solid overcast.

February 27th, 6 km. SW Bernhard Camp.

221 rat traps, 17 steel traps, 182 snares—1 Uromys, 2 Phascogales
This morning prepared specimens and tended traps. This afternoon set 70 rat traps. Line is to the west and above camp, through mixed oak forest.
Teerink and Schroeder arrived this morning from the 800 m. camp. Brought in foodstuff sufficient to maintain a party till the 6th. They plan tomorrow to go to Tox's camp and return with him the following day.
Weather: morning, mist and overcast; early and late afternoon broken overcast with some sun; mid-afternoon rain.

February 28th, 6 km. SW Bernhard Camp.

220 rat traps, 17 steel traps, 182 snares—1 Melomys, 1 Phascogale, 1 Dasyurus, 1 Echymipera.
This morning tended traps and prepared specimens. This afternoon reset 147 rat traps.
Teerink and Schroeder left this morning for Tox's camp. They took carriers (10) sufficient to move him back to Araucaria Creek tomorrow. intervals
Weather: Morning, mist with brief intervals of sunshine; this afternoon, mist and overcast.
Dear Richardson,

1554 X excuses for my stupidity to forget the tin with formalin yesterday. I hope you've not got any trouble by that. We arrived yesterday very well with much rain and snow.  For our I am nearly ready for our travel to 1200 m camp. Tox's foot is not very seriously blessed.

Many words from Sox and me to RoS, from a 5 to Arcas, and yourself.

Sincerely,

Yours,

Alice

3-2-69.
March 1st, 6 km. SW Bernhard Camp.

217 rat traps, 17 steel traps, 182 snares—1 Peroryctes, 2 Melomys

This morning tended traps and prepared specimens. This afternoon prepared specimens and checked and catalogued specimens brought in from the 1500 m. camp, set 10 steel traps and prepared 173 mouse traps for setting. Unable to set mouse traps because of bad weather.

This morning about 11.00 Tox, Van Arcken, Schroeder, Teerink, transport and my two collecting boys arrived from their camp on the Segie River. They, that is the collectors, have been there for nearly two weeks collecting mammals. The following is the result of their work—

| Specimens | 43 (39 trapped, 4 shot) |
| Traps | 175 mouse traps, 10 steel traps |
| Days spent collecting | 13 |
| Trap nights | 2405 |
| Trap nights per specimen | 62 |
| Specimens per day | 3.3 |

The specimens are well prepared and well taken care of. They did not overwork but apparently kept the traps busy.

All the Europeans with the exception of Van Arcken went to Araucaria Creek after having lunch here.

March 2nd, 6 km. SW Bernhard Camp.

217 rat traps, 27 steel traps, 162 snares—1 Peroryctes, 1 Uromys, 1 Anisomys, 1 Dorcopsis.

This morning tended traps, prepared specimens and set 172 mouse traps. This afternoon finished preparation of specimens and wrapped dried specimens in preparation for shipment.

Last evening the boy while out hunting saw two large fruit bats but missed the shots. These beasts are not infrequently heard feeding or flying about but as
yet we have failed to collect one.

Weather: Morning, mist and low overcast; Noon heavy rain for about two hours; Afternoon, brief break in clouds; remainedr of time low overcast and clouds.

March 3rd, 6 km. SW Bernhard Camp.

217 rat traps, 173 mouse traps, 27 steel traps, 186 snares—3 Melomys; the one Phascogale was shot and 1 Melomys 7610 was found dead.

This morning tended traps, prepared specimens. This afternoon developed negatives and watched the bird-of-paradise display ground.

6 carriers took part of Brass' equipment to Araucaria Creek this morning. He will go down with the remainder of his equipment tomorrow.

Weather: morning overcast mist and occasional light rain fell. Afternoon alternating sunshine and overcast.

Yesterday evening spent 1 1/2 hours out hunting. The moonlight made observations easy. Saw many small bats and two large fruit bats. The latter were flying fast over the tree tops with a silent steady wing beat.

March 4th, 6 km. SW Bernhard Camp.

217 rat traps, 172 mouse traps, 27 steel traps, 209 snares—1 Melomys, 2 (Juv) Peroryctes, 1 Phascogale. The Rattus was found dead and the 2 Miniopterus were shot.

This morning tended traps and prepared specimens. This afternoon went for short hunt down the track but returned because of bad weather.

Yesterday evening boy out jacking and saw one small "tikus", rat, in tree but missed the shot.

Brass moved to 800 m. camp today.

Weather: mist, overcast all morning; afternoon intermittent showers, high broken overcast with occasional mist cloud from below.
March 5th, 6 km. SW Bernhard Camp.

217 rat traps, 172 mouse traps, 27 steel traps, 231 snares—5 Melomys, 1 Uromys, 1 Anisomys, 1 Peroryctes.

This morning and afternoon spent in packing specimens and equipment for the transport down tomorrow. All traps are in, 172 mouse traps, 216 rat traps, 27 steel traps. I shall leave a Dyak here for the next two days to tend the snares.

This morning Huls and Schroeder came in. They plan on staying here this night and tomorrow with Van Arcken go over into the Segie River country to visit the natives.

A note from Brass says all is well.

Weather: high overcast with occasional light rain; a few short breaks with sunshinexx.

March 6th, 4 km. SW Bernhard Camp.

231 snares (at 1200 m. camp)—0

Broke camp this morning and after about 1½ hours travel arrived here. Rand remained in 1200 m. camp, coming down tomorrow. The following is a list of carriers loads.

Traps..5; Collecting boxes..2; Specimens..2; Box 32..1; Tent and fly..1; Chair, table and lamp..1; Food stuff..1; Swag..1; Barong..1; Radio..5.

Total, 20 carrier loads, light.

Our camp here I believe will prove to be a very pleasant one. It is situated on the high flood plain of Araucaria Creek and is arranged in a spacious manner. Brass says one must walk 800 yards each morning before work, but to me it is quite a relief from the cramped, crowded quarters which we have had on the Idenburg slope. The climate is comfortable, not too hot, not too cold, and the insects seem well behaved.

After arrival put up the radio, arranged my quarters and set all traps. I have also recruited 4 Dyaks and the Capilla for making snares. They start to work
tomorrow. I now have a total of 10 Dyaks and Marcus all busy at the rat business.

Weather; overcast and low clouds; occasional light rain.

Put in an order of food today. Quantity necessary for a month's stay here; that is food to be added to the regular supply already in. Coffee, 3; Quaker Oats, 1; Canned fruit, 3; Vegetables, 23; Dried apples, 5; Canned milk, 4; Corned beef, 50; Whisky, 5.

March 7th, 4 km. SW Bernhard Camp.
172 mouse traps, 216 rat traps, 27 steel traps—4 Melomys. From the camp above 231 snares yielded 1 Uromys.

Today tended traps, prepared specimens and made an oven for drying specimens. Rand came down bag and baggage this morning from 1200 m. camp. We are completely moved out of that camp, that is it stands abandoned.

Transport of 20 Dyaks and soldiers left this morning for Bernhard Camp.

Weather: Last night rain; today overcast and fog, with occasional small breaks.

March 8th, 4 km. SW Bernhard Camp.
172 mouse traps, 216 rat traps, 26 steel traps, 87 snares—1 Melomys, 1 Hydromys, 1 Uromys, 2 (juv) Peroryctes.

This morning tended traps, prepared specimens; the rain prevented any field work.

Afternoon went hunting down the river. It is a stream 20 to 40 feet wide with large gravel banks and cut away forest edges. Cane grass is common on the upper portion of the gravel banks. The lower flood plain shows that there is at times considerably more water flow than at present.

Weather: Mist and light rain all morning; afternoon high thin overcast which closed in by 4.00 with rain.

March 9th, 4 km. SW Bernhard Camp.
172 mouse traps, 216 rat traps, 27 steel traps, 141 snares—3 Melomys, 2 Peror
ycetes, 1 *Uromys*, 3 (2 juv.) *Echymipera*.

Snares at 1200 m. camp tended. 231 snares x 2 days—1 *Phalanger*, 1 *Phascogale*, 2 *Peroryctes*.

This morning tended traps, prepared specimens and took a short hunt up the river. Examined both sides of the river up ½ km. Few rat signs; badly mutilated by palm heart seekers.

This afternoon, Huls, Schroeder, Van Arcken, patrol and 9 Papuans came into camp from the Segie. All in good health and happy.

The Papuans are not unlike those from the Bele River region. Their dress and ornaments were much the same; their appearance and actions as well as their language is not unlike that of our friends from the 2200 m. (Bele River) camp. They had five dogs with them, two of which we purchased; the small one for 5 shelle, the large one for 1 large knife.

Early evening watched for bats in camp clearing, along river and in second growth forest. A few were seen (4 or 5) but impossible to shoot them.

Late evening went hunting with flashlight. Hunted along southeast from camp. Saw one small *Melomys*. It was running along the forest floor, taking advantage of the small runways through the thick undergrowth. When disturbed it sought retreat among the litter of freshly fallen trees rather than climbing. Shot 1 *Phalanger* (see notes).

Weather; overcast with about 1 hour of sunshine just forenoon. No rain.

March 10th, 4 km. SW Bernhard Camp.

172 mouse traps, 216 rat traps, 27 steel traps 207 snares—1 *Melomys*. 1 *Phalanger* shot. 2 *Canis* bought from natives.

Snares at 1200 m. camp; tended 231 snares—0.

This morning tended traps and prepared specimens. Afternoon finished preparing specimens and searched over portion of flood plain below camp for fruiting *Eugenia*.

Weather; overcast except for period from 10.30 to 12.00. Heavy rains about 4.00 and evening.
March 11th, 4 km. SW Bernhard Camp.

172 mouse traps, 216 rat traps, 27 steel traps, 266 snares—1 Peroryctes.
Caught by convict 1 Eptesicus.

This morning tended traps, prepared specimens. This afternoon went hanging up the river. Taken ill and returned to spend remainder of day in bed. Stomach upset.

Weather; overcast with breaks late morning and early evening afternoon. Late evening rain.

March 12th, 4 km. SW Bernhard Camp.

172 mouse traps, 216 rat traps, 27 steel traps, 318 snares—1 Uromys, 2 Melomys. Shot 1 Phascogale, bought 2 Canis.

From 231, 2 days, snares at 1200 m. camp—1 Uromys.

Remained in camp all day recovering from yesterday’s illness. The boys tended traps, prepared specimens and reset 27 steel traps to the ridge northeast of camp.

Today 5 Papuans were in with 4 dogs for trade. We purchased 2 of the best specimens and prepared them. They remained about camp for one more hour trying to find customers for their unpurchased dogs and then left as they had come.

Evening packed two boxes of specimens for transport down to Bernhard Camp tomorrow.

Late evening went out jacking. Bats (small) were the only mammals seen. Heard dogs howling in the distance, direction towards 1200 m. camp. There are very few small bats to be seen out and only once have I heard the flapping of wings of the large fruit bats.

Weather; overcast most of the day.

March 13th, 4 km. SW Bernhard Camp.

172 mouse traps, 216 rat traps, 27 steel traps, 371 snares—1 Melomys.

This morning tended traps, prepared specimens, degreased dog skins. This after-
noon reset 108 rat traps. Rain kept us in the early part of the afternoon.
This morning Tox, Van Arcken and transport of 33 Dyaks, 5 convicts and 5 soldiers
left for Bernhard Camp. They took out specimens to meet the plane on the 15th.
I sent down the following—Box 32, mammals; box 17, mammals; 1 cartridge box
containing skulls; 3 small tins alcoholics.
Weather Overcast with occasional small breaks this morning until 10.30; 10.30-
1200 heavy rain; Rain 1.00-2.00; 2.00-5.00 overcast.

March 14th, 4 km. SW Bernhard Camp.
172 mouse traps, 216 rat traps, 27 steel traps, 409 snares—1 Melomys.
From 231 snares for 2 days at 1200 m. camp—1 Echymipera.
This morning tended traps, prepared specimens and spent two hours searching on
the ridge below camp for locality in which to set traps. This afternoon reset
105 rat traps south of camp along an Agathis ridge. It's a good looking locality.
This morning Sergeant Critsen, 2 soldiers and 1 convict left for Bernhard Camp.
Weather; Overcast with frequent rains; heavy wind this evening.

March 15th, 4 km. SW Bernhard Camp.
172 mouse traps, 216 rat traps, 27 steel traps, 442 snares—1 Echymipera, 3
Peroryctes, 1 Melomys.
This morning tended radio during the flight of the Guba to Idenburg, later pre-
pared specimens. Afternoon reset 155 mouse traps. I am having trouble with the
mouse traps. They are breaking at a rate of about 2 per day.
This afternoon transport came in from Bernhard Camp bringing fresh food, mail
and special orders.
Weather: Morning until 10.30 light broken overcast with much sunshine; from 10.30
overcast; 4.30 to late evening heavy rain and very heavy wind.

Letter from Van Arcken.

Dear Richardson:—Yesterday I bought a Koes koes from the Papuans down here
and send up skin and skull with this transport.
Loisette Richardson,

Yesterday I bought a bison bone from the paper down here and send up skin and skull with this transport.

If these skins have value for the collection I can arrange next time to send up the whole bison.

Please send me a note about this.

Yours,

J. F. Mele
Mr. Richardson

I don't know what I'm doing anymore.

I'm not in this alone. I need you.

Everything is at odds. I can't understand.

There is a form and a sound. There is a

I don't know what I'm doing anymore.

I'm not in this alone. I need you.

Everything is at odds. I can't understand.
If these skins have value for the collection I can arrange next time to send up the whole unskinned. Please send me a note about that.

Regards,

Van Arcken.

March 16th, 4 km. SW Bernhard Camp.

155 mouse traps, 209 rat traps, 27 steel traps, 508 snares—1 Dorcopsis, 1 Beroryctes, 1 Phascagale, 1 Pseudohydromys, 3 (2 juv) Echymipera, 1 Melomys.

Snares at 1200 m. Camp Tended 231 snares for 2 days—0

Tended traps and prepared specimens this morning. Afternoon searched for new trapping locality along small stream side south west of camp.

Teerink, Tox., and transport arrived late this morning. Brought in Dutch party's provisions.

Early evening went bat hunting along lower edge of flood plain along river. No bats seen.

Late evening went jacking—6 frogs.

Weather: No rain; sunshine with intermittent overcast.

March 17th, 4 km. SW Bernhard Camp.

155 mouse traps, 209 rat traps, 27 steel traps, 573 snares—1 Melomys, 2 Peroryctes.

The Phelanger, skin and skull, was sent up this morning by Van Arcken from Bernhard Camp.

This morning tended traps and prepared specimens. Rain kept me inside remainder of day.

Transport arrived from Bernhard Camp with gasoline, paper, axes, fountain for American party.

Weather: overcast with frequent rain.

March 18th, 4 km. SW Bernhard Camp.

155 mouse traps, 209 rat traps, 27 steel traps, 573 snares—2 Melomys, 2 (1 juv)
Echymipera. Snares at 1200 m. camp, tended 231 2 days—0.

This morning tended traps, prepared specimens and took a short hunt up river. Afternoon remained in camp awaiting report from snares at 1200 m. camp and for the weather to clear. Late afternoon went down to examine some fruiting trees and the possibility of cuscus feeding on them.

Evening out for bats. Many seen but unfortunately the only one shot fell in river and was lost.

Weather: Overcast in morning until 10.00; 10.00 to 11.30, sunshine; Overcast from 11.30 on with intermittent light showers. Evening heavy rain. Rain continued most of the night.

Rand left this morning for Bernhard Camp. He plans to be away for 4 or 5 days, taking advantage of the high water and the possible concentration of birds which may occur on the higher ground.

March 19th, 4 km. SW Bernhard Camp.

155 mouse traps, 209 rat traps, 27 steel traps, 598 snares—1 Melomys, 1 Phaco-gale, 1 Phalanger, 1 Peroryctes.

Morning tended traps and prepared specimens. Afternoon went down the river. Rain prevented going very far or seeing very much. Evening hunted for bats; none seen.

Weather: overcast with light rains in morning and heavy rain in late afternoon. Rain most of the night.

March 20th, 4 km. SW Bernhard Camp.

150 mouse traps, 209 rat traps, 27 steel traps, 643 snares—4 Melomys, 1 Phas-gale.

Snares at 1200 m. camp tended 231 x 2 days — 0. This morning tended traps, prepared specimens and went for a short hunt along the lower flood plain.
Afternoon also out in this same region for a short time. Evening out for bats in an opening at the upper edge of the flood plain. Three individuals seen, one of which fell when shot but could not find it. Evening shot a Pseudocheirus while jacking.


March 21, 1939. 4 km. SW Bernhard Camp.

150 mouse traps, 209 rat traps, 27 steel traps, 670 snares - 1 Phascogale, 4 (2 juv.) Echymipera, 1 Melomys, 1 Uromys. Shot two (1 juv.) Pseudocheirus.

This morning tended traps and prepared specimens. Afternoon spent out with the Dyaks making snares.

There were 2 Papuans in camp this late morning, each with a dog so sell. They did not make the sale and soon left.

Spent the evening bat shooting and jacking. Obtained 2 individuals new for this camp.

Weather: morning overcast with occasional breaks. Afternoon overcast with occasional light rain.

March 22, 1939. 4 km. SW Bernhard Camp.

150 mouse traps, 209 rat traps, 27 steel traps, 742 snares - 1 Melomys, 3 (2 juv.) Echymipera, 2 (1 juv.) Peroryctes.

Yesterday evening shot one Nyctimene, 1 Pipistrellus.

Morning spent tending traps and preparing specimens. Afternoon reset 27 steel traps in the mossy forest east of camp.

Soldiers brought in a cassowary, a young ♀. The head and wing were saved for specimen. Weather. Morning overcast with light rain. Afternoon overcast with occasional small break.

Note: Traps at 1200 m. camp attended today- 231 snares x 2 days - ♂.
March 23, 1939. 4 km. SW Bernhard Camp.

150 mouse traps, 209 rat traps, 27 steel traps, 769 snares. 1 Melomys, 1 Phalanger, 2 Phascogale. Shot 1 Phalanger. Caught an insect net – 1 Melomys.

This morning packed specimens for shipment to Hollandia and prepared specimens brought in by collectors. Afternoon reset 108 rat traps along the far side of the river above camp. Have hopes of catching some water rats there.

From the radio learn of very high water of Idenburg. Terink is planning to leave tomorrow to construct new camp at the edge of the hills.

Weather unsettled. Broken overcast occasional light rain.

March 24, 1939. 4 km. SW Bernhard Camp.

150 mouse traps, 207 rat traps, 27 steel traps, 812 snares: 3 Melomys, 1 Hydromys, 1 Phalanger, 1 Echymipera, 1 Peroryctes, 1 Dorcopsis.

Tended snares at 1200 m. camp. 231 snares x 2 days – 0.

Morning tended traps and prepared specimens. P.M. reset 99 rat traps and developed pictures. The traps were set in and bordering the Agathis forest below camp.

Terink left this morning with all available men to construct a new camp above the Idenburg floods at the edge of the foothills.


March 25, 1939. 4 km. SW Bernhard Camp.

150 mouse traps, 207 rat traps, 27 steel traps, 812 snares: 3 Melomys. 

Morning tended traps and prepared specimens. P.M. reset 125 rat traps. This line is run NW of camp on the ridges above the flood plain. It is a second growth forest with rather thick undergrowth.

Evening shot two bats. It was a mild evening and many bats were seen flying about.

Late evening went jacking – no mammals seen but managed to capture some frogs new to the collection. The boys saw several small rats one of which they shot.
Weather: no rain broken overcast.

March 26, 1939. 4 km. SW Bernhard Camp.
125 mouse traps, 207 rat traps, 27 steel traps, 832 snares – 4 Melomys.
Shot two Emballonura, one Pogonomys.
Morning tended traps and prepared specimens. Being Sunday the early afternoon was spent in rest and reading. Later on in the PM packed up a black box of specimens for transport men tomorrow.
The following is a list of specimens to go down with tomorrow's transport.
Black box #53: large and medium mammals, green sack containing box of flat skins, two small cans alcoholics.
A transport came in this morning with seven carriers to return tomorrow with specimens.
Weather: Morning broken overcast, afternoon continual fain.

March 27, 1939. 4 km. SW Bernhard Camp.
125 mouse traps, 207 rat traps, 27 steel traps, 832 snares – 1 Phascogale, 1 Dorcopsis, 1 Phalanger, 1 Uromys.
Tended snares at 1200 m. camp. 231 snares for three days – 7 (6 juv.) Phascogales.
This AM tended traps and prepared specimens. Afternoon spent in the field in search of suitable trapping localities along the river and for fruiting Eugenias. This AM Rand returned from the Idenburg. He reports good collecting in the Idenburg during the high water. He was particularly successful in the marshy regions. He states that he has prepared three Pteropus and six Phalangers.
Early evening was out bat shooting – many bats flying apparently 2 spp. but was unable to hit them. Late evening out jacking. Saw one large rat but it escaped in cover of forest undergrowth.
Weather: No rain, broken overcast with sunshine partly during the late morning.

March 28, 1939. 4 km. SW Bernhard Camp.

25 mouse traps, 207 rat traps, 27 steel traps, 845 snares: 1 Uromys, 1 Peroryctes.

AM tended traps and prepared specimens. PM spent in search of suitable trapping localities along the ridge to the north of camp. Evening shot three bats late evening out jacking. Nothing seen. Boys shot one Pseudocheirus.

Weather: Light rain early morning clearing mid morning occasional clouds much sunshine remainder of day. Evening high thin overcast.

March 29, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 207 rat traps, 27 steel traps, 845 snares: 2 Echymipera. Shot 2 Emballonura, 1 Pipistrellus, 3 (2 juv.) Pseudocheirus.

Snares tended at 1200 m. camp. 231 snares for 2 days - 0. This morning prepared specimens and went up to the 1200 m. camp. I was able to check over part of the line of snares and spent some 2½ hours watching the bird of paradise display ground. There were no birds there although the floor was clean showing occupancy. This evening shot one bat. The flight began on as usual about 6.20 but stopped all of a sudden at 6.32. This sudden change was perhaps due to the coming of rain which broke some 10 minutes later.

Transport arrived this afternoon about 5.00 o'clock this afternoon from Bernhard Camp bringing with it flour, 2 axes, mail, squash. Teerink comes up tomorrow with remainder of fresh food brought in by the Guba today.

Weather. Clear with occasional cloud until about three when it became overcast. Sprinkle at 5.15 and heavy rain from 7 to about 8.30.
March 30, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 207 rat traps, 27 steel traps, 875 snares; 1 Peroryctes, 1 Echymipera, 1 Melomys, 1 Dorcopsis. Shot one Pipistrellus.

This AM tended traps and prepared specimens. PM looking for new trapping locality along the upper edge of the flood plain. On the far side of the river above camp. Evening shot one bat. Spent several hours during late evening out jacking without results.

Weather: No rain. Much sunshine during middle part of the day. Broken overcast morning and evening.

This morning Teerink, Huls and transport arrived in camp, brought up with them books and potatoes for American party. They report all well and things in good order at Bernhard and the camp at the foot of the hills.

March 31, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 207 rat traps, 27 steel traps, 901 snares; 4 Melomys, 1 Echymipera, 1 Uromys. Shot one Emballonura.

This AM tended traps and prepared specimens. PM inspected proposed steel trap line. Find that the Dyak has selected and marked suitable runways. Late PM took can of alcoholic material. Evening out for bats but failed to get any. Later out jacking and procured two Phalangers (1 juv.)

Weather: Broken overcast with much sunshine during midday. No rain until 8.30 PM.
April 1, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 207 rat traps, 27 steel traps, 987 snares - 2 Peroryctes, 2 Echymipera, 4 (3 juv.) Dasyurus, 1 Melomys. Shot 1 Pteropus, 2 (1 juv.) Phalanger.

Traps tended at 1200 m. camp - 231 snares for three dya - 0.

This morning tended traps and prepared specimens. Late afternoon reset 97 rat traps along the river bank below camp. Evening out for bats but failed to get any. Late evening out jacking. Shot one Pseudocheirus.

About noon Buzonie, van Arken and transport came in camp.

Buzonie is taking over my radio duties while he remains in this camp.


April 2, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 205 rat traps, 27 steel traps, 987 snares - 1 Rattus, 1 Phascogale, 1 Lorentzimys, 1 Melomys, 1 Hydromys, 2 (1 juv.) Peroryctes. Shot one Pseudocheirus.

This morning tended traps, and prepared specimens. This afternoon remained about camp making notes, and generally doing nothing for today is Sunday.

Evening out for bats and obtained one. Late evening out jacking. Saw one cuscus but it escaped. It was probably one of the large gray Phalangers.

It was first seen climbing up a bit of jungle rope. After freeing several shots it disappeared in the foliage of a large tree. It climbs with remarkable ease and rapidity and is not the slow motion climbing of the P. maculatus.

Weather: Broken overcast during day with much sunshine during mid-day.

Rain during night starting about 9:00.
April 3, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 205 rat traps, 27 steel traps, 987 snares: 3 (l juv.) Peroryctes, 1 Uromys, 1 Dorcopsis, 1 Melomys, 1 Hydromys, 1 Dactyonax, 1 Rattus. Shot 1 Emballonura.

This morning tended traps and prepared specimens. Afternoon reset 106 rats along the river below camp. Evening out for bats and later out jacking.

Weather: Morning broken overcast. Afternoon intermittent rain clearing about 3.30. Late evening heavy rain.

April 4, 1939. 4 km. SW Bernhard Camp.

125 mouse traps, 203 rat traps, 27 steel traps, 998 snares: 2 (l juv.) Dorcopsis, 1 Uromys.

Morning tended traps and prepared specimens. Afternoon reset 92 mouse traps on a low ridge and along small creek to the SW of camp. Evening out for bats and later out jacking but nothing obtained.

This morning Tox, Teerink, Huls, Buzonie, and transport left for Bernhard Camp on the small camp at the foot of the hills. They will remain there until they leave for Hollandia.

This afternoon two Papuans came in with four dogs to sell. They did not, however, sell any of their dogs but I did buy Manioc, a sweet potato-like thing which is to be used as rat bait. They remained about camp amusing us and evening crossed the river to their night's shelter. These natives were not only interested in selling their dogs but also in obtaining permission to take two discarded axes which they had found at the 1200 m. camp. Honesty is the best policy and a primitive one.

Weather: Clear with occasional large clouds. Evening clear.
April 5, 1939. 4 km. SW Bernhard Camp.

92 mouse traps, 203 rat traps, 27 steel traps, 1033 snares - 1 Melomys, 1 Dasyurus.

Morning tended traps, prepared specimens and finished odd jobs about camp. Afternoon spent poisoning fish with some derrio powder which Tox left in camp. Evening out for bats again but only a very few seen. Out jacking in late evening.


April 6, 1939. 4 km. SW Bernhard Camp.

92 mouse traps, 203 rat traps, 27 steel traps, 1075 snares - 4 Melomys, 1 Phascogale, 1 Hydromys.

This morning tended traps, prepared specimens and packed alcoholics for shipment. This afternoon went for a short hunt down the river. Spent rest of afternoon packing mammals for shipment. This evening out for bats and jacking. Very few bats seen, and no mammal seen by torch light.

This morning Brass left for Bernhard Camp with bag and baggage. Actually he is going to a small subsidiary camp at the foot of the hills some half hour's distance from Bernhard Camp.

Weather: Broken overcast with sunshine during midday. Evening rain.

April 7, 1939. 4 km. SW Bernhard Camp.

92 mouse traps, 203 rat traps, 27 steel traps, 1075 snares - 4 Melomys, 1 Uromys, 1 Dasyurus, 2 Echymipera.

This morning tended traps, and prepared specimens. Remainder of day spent in packing specimens and equipment for trip to Bernhard Camp tomorrow. All traps taken up and packed.

Weather: Broken overcast with heavy rain mid afternoon.
April 8, 1939. Bernhard Camp.

No traps.

Left 850 m. camp this morning at 7.00 and arrived here at 9.00. Rand and I had 27 carrier loads ranging in weight from 18 to 25 kg. Follows list of my equipment with weights: 4 sacks traps, 22 kg. each; can #77 6 kg; 2 cartridge boxes 2½ x 3½; box #41, 8 kg; large can alcoholics, 12 kg; radio 20-22 each; box #4, 1½ kg; box #3, 16; sack, 25 kg.; box 58, 21 kg.

Our camp here is actually not Bernhard camp but rather a small subsidiary camp at the base of the foothills some one half hour SW from Bernhard Camp. It is situated on a small rocky ridge on the east bank of the second stream from Bernhard Camp. This camp was constructed for collecting and to be used by entire party, if Bernhard Camp itself became too deep in water. Tox, Brass and I are at present staying here collecting. Rand having gone into Bernhard Camp.

Weather: Broken overcast with heavy rain in evening.

Set all traps this afternoon consisting of 267 rat traps, 79 mouse traps, 27 steel traps.

April 9, 1939. Bernhard Camp.

79 mouse traps, 267 rat traps, 27 steel traps - 1 Melomys.

Part of the 1075 snares (about 400 - 2 days) at the 850 m. camp tended - 1 Dorcopsis, 1 Echymipera.

This morning tended traps, prepared specimens and constructed oven for drying of green specimens. Afternoon went to Bernhard Camp. Checked over provisions and made up order for full quantity for 50 days. Also brought into this camp food for ten days, for Brass and myself. Brought back specimens which Rand had prepared for cataloging.

Weather: overcast with occasional breaks.
BIOLOGICAL EXPLORATIONS
THE AMERICAN MUSEUM OF NATURAL HISTORY
CENTRAL PARK WEST AT 79th STREET
NEW YORK, N.Y.

1938 New Guinea Expedition
Richard Archbold, Leader
A. L. Rand, Ornithologist and Assistant Leader
Wm. B. Richardson, Mammalogist
L. J. Brass, Botanist
Russell R. Rogers, Pilot
Gerald D. Brown, Flight Engineer
Raymond E. Booth, Radio Operator
Harold G. Ramm, Radio Operator

Field Headquarters:
HOLLANDIA,
NETHERLANDS NEW GUINEA
10 Apr 39
500 Campo

Dear Richardson—

Thanks for the Homhill and the Blue ground Babblers.

This was my first day in the field here & I got 5 new species in the collection. Please tell me when I went across the river, to what the pigs were credited. It was a small cutoff, most apparently could see no open water—all I could see was cane grass & small pools from the river. The soft mud, too, was soft well and apparently near the following tributaries. Crocodile (1 find, mid. size) dog (1 find) (1 early find) rats (many, various ages & genders) landcoot (1 find, mid. size) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, various ages & genders) wallaby (1 find, 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April 10, 1939. Bernhard Camp.

79 mouse traps, 267 rat traps, 27 steel traps - 1 Melomys, 1 Echymipera.

This morning tended traps, prepared specimens and catalogued specimens prepared by Rand. Afternoon out fishing with derris along a small stream before it reached the Idenburg flood waters (see alcoholics). Evening out for bats and later out with lamp jacking. Did not get any mammals.

Weather: Broken overcast clearing in midday.

Letter from Rand dated April 10, 1939, 50 m. camp:-

"Dear Richardson:-

Thanks for the hornbill and the blue ground babbler.

This was my first day in the field here and I got five new species in the collection. Please tell Brass I went across the river to where the frogs were croaking. Its a small cut-off, now apparently well filled in. There's no entrance to it, and a boy up a tree said he could see no open water. All I could see was cane grass and small pools. The forest floor is soft mud covered and I went perhaps 200 yds. in from the river. The soft wind takes tracks well and apparently animals are swarming back onto the exposed flood plains. I saw the following tracks- crocodile (1 fresh, med. size), dog (1 fresh) pig (several, various sizes and freshness) bandicoot (several, fresh) wallaby (1 fairly fresh) rats (many various sizes and freshness) cassowary (many old and new) scrubhens (a few) goura's (many fresh). The Papuans are living down that way now.

I ran into the terns Brass told me about; got 11.

Otherwise quiet.

Sincerely

A. L. Rand"
Junction

Page 1

[Text on the page is not legible or decipherable]
Dear Rhondow -

Here with a number of any book of the 3 sizes at present in stock + 1 varonay sp? Many very small boats swimming about a very few places near edge of stream very early 6.15 my watch time, fishing - new built on explored sandbars. General mobilization in European countries including Holland & Belgium. Thanks for the book & for sending the Megapoede.

G. & Rand
W. B. Robertson
75 Metz Camp
April 11, 1939. Bernhard Camp.

79 mouse traps, 267 rat traps, 27 steel traps, 70 snares. - 0.
This morning tended traps, took care of alcoholic specimens and went to Bernhard Camp for Alcohol, formalin, gasoline, cigarettes, newspaper, etc.
Afternoon explored portions of lower exposed flood plain near landing.
Evening out for bats and later out with lamp. Shot one fruit eating bat by lamp light.

Weather: Broken overcast clearing in afternoon. Light rain early morning.

April 12, 1939. Bernhard Camp.

79 mouse traps, 267 rat traps, 27 steel traps, 130 snares - 0.
Yesterday evening shot one *Dobsonia*. Rand sent over 1 *Dobsonia*, 1 *Pteropus*.
Afternoon shot three *Emballonura*.
This morning tended traps, prepared specimens and did odd jobs about camp.
Afternoon went hunting along the upper edge of the flood plain where it meets the mountains. There are several good trap sites in this area especially along the small stream sides. Shot three bats. Evening out bat shooting and later out jacking. No mammals obtained.

Weather: Early morning overcast; mid morning breaking, remainder of day clear with occasional clouds.

April 13, 1939. Bernhard Camp.

79 mouse traps, 267 rat traps, 27 steel traps, 170 snares - 0.
Shot eight *Hipposideros* this afternoon.
This morning tended traps and went out hunting on the flood plain. Afternoon cut track along river for night hunting and prepared specimens. Set 57 mouse traps. Evening out for bats.

Weather: overcast clearing during midday. Evening rain which continued through the night.
Concerning *Zenuromys*
See correspondence with Van Deusen,
April 14, 1939. Bernhard Camp.

57 mouse traps, 267 rat traps, 27 steel traps, 222 snares - 1 Uromys, 1 Peroryctes, 1 Echymipera. Killed one Phalanger. Morning prepared specimens and packed specimens. Afternoon finished packing specimens for shipment to Hollandia tomorrow. Evening we were invited to the main camp for dinner and entertainment. It was a bit of OK; big drink, big eat, big talk and everyone leaves happy.

Weather: rain in morning until about 10.30. Remainder of day broken overcast.

April 15, 1939. Bernhard Camp.

57 mouse traps, 267 rat traps, 27 steel traps, 253 snares - 1 Uromys, 1 Peroryctes, 1 Echymipera. Killed one Phalanger. This morning went to Bernhard Camp to put the mail, remainder of morning spent in preparing specimens. This afternoon reset 259 rat traps. Today the Cuba came into the lagoon of Bernhard Camp. It made two trips taking out Tox, Teerink, Tox's 3 assistants and 1 cook, 1 brigade of soldiers, convicts and Dyaks a total of about 28 men. It brought in mail, fresh food stuffs and orders.

Weather: Broken overcast clearing during midday.

April 16, 1939. Bernhard Camp.

57 mouse traps, 259 rat traps, 27 steel traps, 268 snares - 2 Uromys, 1 Dasyurus. Shot three Phalangiers. This morning tended traps and prepared specimens. Afternoon flashed out large (13 ft.) crocodile which was shot by Rand at Bernhard Camp. Evening out bat shooting and later out jacking.

Weather: Broken overcast.
W. D. B. Rawlinson
75 W. Croy
April 17, 1939. Bernhard Camp.

57 mouse traps, 259 rat traps, 27 steel traps, 328 snares - 3 Dasyurus, 4 Echymipera. Shot two Dobsonia, 1 Sus.

This morning tended traps and prepared specimens. Afternoon went to Bernhard Camp for supplies and prepared specimens. All seem well and happy at the main camp. Rand reports good collecting. He saw two Dobsonia (large sp.) being chased out of a hollow tree by parrots.

Weather: overcast breaking during midday, evening rain.

April 18, 1939. Bernhard Camp.

57 mouse traps, 259 rat traps, 27 steel traps, 360 snares - 0. Shot four Emballonura.

This morning tended traps and hunted along the flood plain. Afternoon hunted on lower flood plain. Shot four bats; prepared them as specimens.

Brass moved bag and baggage to the main camp. He intends working out from that camp by prow.

Evening out for bats and **x** later out jacking. There are many (3 or 4 spp.) bats flying about in the evening. Most individuals seem to feed below the forest crowns in the leafy second stage or lower crown vegetation. Jacking at night has been very poor. I usually spend from 7.30 to 9.30 in the field moving slowly watching trees and undergrowth for eyes or movement of vegetation. Up to date I have seen what I believe to be one Dasyurus.

Weather: overcast, with large breaks during midday, late night rain.

April 19, 1939. Bernhard Camp.

57 mouse traps, 260 rat traps, 27 steel traps, 418 snares - 1 Echymipera, 1 Canis. Shot 1 Dobsonia, 1 Pogonomys.

Yesterday morning prepared specimens, and went hunting along the water's
of the lower flood plain. Afternoon reset 114 rat traps along stream side of upper flood plain.

Weather: Overcast with small breaks during morning, rain 11.30 and light intermittent rain afternoon. Heavy rain early morning.

April 20, 1939. Bernhard Camp.

57 mouse traps, 260 rat traps, 27 steel traps, 463 snares - 2 Echymipera, 1 Phascogale. Killed 1 Melomys. Shot four Emballonura, 1 Sus, 1 Hippo-Aideros.

Morning tended traps prepared specimens and went out hunting. Afternoon reset 143 rat traps along the river bank in the flood plain.


April 21, 1939. Bernhard Camp

29 mouse traps, 257 rat traps, 27 steel traps, 483 snares - 2 Echymipera. Morning tended traps, prepared specimens and went for a short hunt along lower flood plain. Afternoon prepared (fleshed) skin of pig and went to Bernhard Camp for supplies. Evening out for bats (hit one) and later out jacking (nothing seen except few bats).

Weather: Overcast with few breaks. Light rain early afternoon.

April 22, 1939. Bernhard Camp.

29 mouse traps, 257 rat traps, 27 steel traps, 520 snares - 4 Echymipera, 1 Melomys. Shot one Phalanger, 1 Pipistrellus, 1 Miniopterus, 2 Emballonura. Today about camp preparing specimens, etc., etc.

Evening out for bats, shot one. Later out jacking - no results; returned early because of heavy rain.

Van Arcken in camp this evening. Told of the two planes which we heard coming into the lagoon today. They are the gold mine planes, Ertmann and
Zielkien (sp.?) a Grummand a navy plane. Their plans are to bring
bring into Bernhard Camp 20 Dyaks, 10 Javanese carriers, police and
crew (geologist, etc.). They will proceed up the Idenburg River by canoe
(our canoes) as far as the gorge and carry through the gorge and then
build more canoes and proceed on up the river to their destination (?).
Several days ago they attempted landing on the river some 80 km. above
our camp. While they were successful in their attempt they found the
water very swift and many logs and so believe it unwise to to make further
landings there.

Weather: Overcast with occasional small breaks; evening heavy rain.

April 23, 1939. Bernhard Camp.

29 mouse traps, 257 rat traps, 27 steel traps, 570 snares – 3 Echymipera,
1 Phascogale. Shottwo Emballonura, 1 Pipistrellus.

Today tended traps, prepared specimens, and packed equipment for breaking
camp.

Evening out for bats.

Weather: Overcast: intermittent rain.

April 24, 1939. Bernhard Camp.

29 mouse traps, 257 rat traps, 27 steel traps, 602 snares: 1 Phascogale.
This morning broke camp and moved to the main camp some 3/4 hour distant (NNW).
Spent part of the morning and most of the afternoon in search of dry land
along the edge of the lower lagoon. Evening out for bats.

Ertman and Zielchen (Gold Mines) still moving in men and equipment to
our camp.

Weather: Overcast. Heavy evening rain.
April 25, 1939. Bernhard Camp.

602 snares - 3 (2 juv.) Echymipera, 2 Phascogale. Shot three Dobsonia, 4 Hipposideros.

This morning searched for suitable trapping localities along dry banks of the small river entering at the head of the lagoon. There are a number of dry patches of land along the river bank itself which should be suitable for snares.

Afternoon set 21 mouse traps, 253 rat traps 27 steel traps. The mouse and rat traps are set along the west edge of the lagoon south of the narrows. Here there still remains a large strip of land which is not inundated although one foot rise in the water and all will be under. The steel traps are set along the lower mountain slope SW of camp.


April 26, 1939. Bernhard Camp.

21 mouse traps, 253 rat traps, 27 steel traps, 602 snares - 2 Echymipera.

Shot one Pipistrellus.

This morning tended traps, prepared specimens and spent several hours in the inundated forest to the east in the bend of the lagoon. No mammals seen although some time was spent in poking about the fern clumps on the trees. One large fig tree looked through rather thoroughly.

Afternoon went in search of Pteropus which Mr. Horn had seen this morning. They were found in the second growth trees at the end of the lagoon; some 30 or 40 individuals.

Evening out for bats, obtained two.

Weather: Broken overcast with nightly rains. Still high water, rising slightly.
April 27, 1939. Bernhard Camp.

21 mouse traps, 250 rat traps, 27 steel traps, 652 snares -- 2 Echymipera, 1 Hydromys, 1 Melomys. Shot - 1 Pipistrellus, 1 Emballonura, 18 Pteropus.

Day spent in preparing specimens. Evening out for bats.

Weather: overcast with occasional breaks: rain in evening.

April 28, 1939. Bernhard Camp.

21 mouse traps, 253 rat traps, 27 steel traps, 712 snares - 0. Shot one Pipistrellus, 3 (1 juv) Phalangers, 1 Dobsonia, 11 Emballonura.

This morning tended traps prepared specimens, and spent 3½ hours looking through the inundated forest in the bend of the lagoon.

Afternoon reset traps, 17 mouse traps, 234 rat traps.

Weather: Overcast with occasional breaks, foggy morning, evening rain.

April 29, 1939. Bernhard Camp.

17 mouse traps, 244 rat traps, 27 steel traps, 762 snares - 1 Melomys, 2 Phascogale, 3 (1 juv) Echymipera, 1 Phalanger. Shot two Emballonura.

This morning tended traps, prepared specimens and spent several hours in the inundated forest south of the lagoon. Afternoon worked in the forest east of the narrows. Evening out for bats and later out jacking.

Shot one Pipistrellus and 1 Uromys.

Weather broken overcast with large breaks during mid day. Heavy night rain. Water still rising.

April 30, 1939. Bernhard Camp.

17 mouse traps, 244 rat traps, 27 steel traps, 799 snares - 1 Hydromys, 1 Echymipera; shot 5 (1 juv) Phalanger, 1 Uromys. Killed one Melomys.
This morning prepared specimens and examined the mouth of the stream coming in at the south of the lagoon and the smaller lagoon to the south of the main arc. The stream side may prove profitable for hunting. Afternoon remained in camp. Evening out for bats and later spent four hours at jacking. Shot one Uromys.

Weather clear with few scattered clouds. Last night heavy rain. Water at standstill today; camp up about 20 cm. last night.

This evening Archbold gave us a rebroadcast of the talk he gave to the U. S. this morning. The rebroadcast was by record made in Berkeley and played for our benefit. Could understand only about 75% of it.
May 1, 1939. Bernhard Camp.

17 mouse traps, 244 rat traps, 27 steel traps, 853 snares -- 5 (2 juv.) Echymipera, 2 Phascogale. Shot - 5 Emballonura, 1 Pipistrellus, 1 Uromys. This morning tended traps, prepared specimens, and hunted in the sago swamp SW of camp. It is semi-inundated at present high water. There are a number of pig tracks and some signs of what appeared to be bandicoots. Afternoon spent about camp tending to notes and drying of specimens as well as resting for evening's work. Evening out for bats, shot two. Later at jacking but returned early because of heavy rain.

Weather. Clear with scattered shifting cloud. Heavy rain this evening. Water rising slightly, 3 or 4 cm. since yesterday afternoon.

May 2, 1939. Bernhard Camp.

17 mouse traps, 244 rat traps, 27 steel traps, 893 snares - 1 Phascogale, 2 (1 juv.) Echymipera. Shot - 1 Pipistrellus, 1 Rhinonycteris. Early morning was spent in taking care of specimens. Remainder of day spent in trip up the Idenburg River; went down the lagoon and out the mouth, followed up the east side of the river for several kilometers (1 km. past the island, and down the west side of the river. At frequent intervals I examined the broken strip of land along the river edge for mammal signs. Although the soft clay would hold tracks there were none seen except those of birds. Found Pteropus hanging up in the cane grass. Counted 7 Papuan shelters. They were apparently temporary being used while cutting sago. The water is high, silty (light gray), and with scattered floating logs along the course. The bank along the river edge varied in height from 6" to 2' above the water level. Current about 6 to 8 km. per hour.
May 3, 1939. Bernhard Camp.

17 mouse traps, 244 rat traps, 27 steel traps, 893 snares - 1 Phalanger, 3 (2 juv.) Echymipera. Shot 7 *Pteropus*, 1 *Emballonura*, 1 Phalanger. This morning tended to specimens and went hunting about the head of the lagoon. I saw three of the large sp. of *Pteropus* hanging in the second growth vegetation bordering the lagoon. They were near where the colony was seen some days ago. Also shot one Phalanger m. which was in the larger forest trees bordering the lagoon. Returned afternoon. Late afternoon took up the rat and mouse traps set at the point. Tomorrow they are to be reset at the other side of the river.

This morning 2 turtles were taken from the snares set on the exposed land (above the flood) at the mouth of the small stream coming into the lagoon. It was in a similar spot that Rand found the 3 eggs (alcoholic) several days ago.

Evening out for bats, shot one. Later out jacking, shot one Echymiper, saw large and small bats.

Weather: Broken overcast, water down 10-15 cm.

May 4, 1939. Bernhard Camp.

27 steel traps, 943 snares - 0. Shot 1 Echymipera, 1 Dobsonia, 1 Emballonura. This morning early left with 8 Dyaks for the forested bank of the Idenburg River some $\frac{1}{2}$ km. upstream, across from the mouth of the lagoon. Set 218 rat traps and 7 mouse traps. The boys made snares and I spent my time hunting through the forest. The silt which covers the ground holds the tracks well and so much was to be learned from studying these silt deposits. Cassowary tracks very common. Bird tracks large and small common especially about the cane breaks bordering the river. Pig tracks a few. Rat tracks scarcer, seen only about the cane thickets bordering the river. Returned from the river this evening too tired to go out jacking.
Weather: Early morning low overcast, breaking during middle of day, evening rain. Water going down 20-30 cm.

7 mouse traps, 218 rat traps, 986 snares, 27 steel traps - 1 Melomys, 1 Phascogale, 1 Echymipera. Shot - 1 Phalanger.
This morning tended traps the other side of the Idenburg and remained there hunting until about 4.30. Evening out for bats, shot 1 Rhinonycteris. The gold mine plain, a Grummand, sank in Sentani Lake after nose spinning while landing. None hurt. The plane a total loss. The fate of the 11 men which remain at our camp here is as yet undecided. Perhaps they will obtain another plane or perhaps they will go out to Hollandia in the Guba.
Weather: Early morning rain, clearing about 9.00, followed by shifting clouds. Rain in night.

May 6, 1939. Bernhard Camp.
7 mouse traps, 218 rat traps, 27 steel traps, 1055 snares - 2 Echymipera. Shot 1 Rhinonycteris.
Today spent about camp packing specimens, etc., in preparation for return to Hollandia.
Evening out for bats.
Weather broken overcast heavy in morning with infrequent rain; clearing in midday.

May 7, 1939. Bernhard Camp.
7 mouse traps, 218 rat traps, 27 steel traps, 1055 snares - 4 (1 juv.) Echymipera, 1 Hydromys, 1 Rattus. Shot - 9 Emballonura, 2 Phalanger.
The day spent in packing specimens, skulls and doing odd jobs in preparation for our move out to Hollandia.

Weather: large shifting clouds, much sunshine, evening rain.

May 8, 1939. Bernhard Camp.

7 mouse traps, 218 rat traps, 27 steel traps, 1055 snares - 1 Uromys, 3 (1 juv.) Echymiper (discarded). Shot 2 Emballonura.

Today finished packing specimens and equipment which are to be taken to Hollandia tomorrow morning. Weight of my specimens, barong plus special equipment was about 295 kg.

Weather: Broken overcast with shifting clouds, much sunshine.

May 9, 1939. Hollandia.

No traps.

This morning on the first flight Rand, I and 17 others left Bernhard Camp on the Guba and arrived in Hollandia. The Guba made a total of two flights today bringing out 19 persons, plus cargo.

Today spent checking and packing birds, mammals and alcoholics for shipment to America.

May 10-21

No traps.

These days were spent in packing and crating boxes of specimens, curios and personnel effects to be sent to New York. All in order.

The Guba left on the 13th for Sydney taking with it the crew plus Ramm and Rand. Rand and Archbold are going as far as Townsville and there taking plane to Java. Guba going to Sydney for check before flight, across Indian Ocean, Africa and Atlantic to New York.
There are six tree climbing kangaroos in my charge which are to be exported alive. One is destined for Soerabaja Zoo, one for the Sydney Zoo and four for American zoos. Hope they survive the trip through Australian winter.

May 22, 1939. KPM Steamship "van Imhoff"
Left Hollandia yesterday evening about 10.00. Anticipate a pleasant trip homeward.

END