FEDERATED MALAY STATES.

REPORT ON THE MUSEUMS DEPARTMENT FOR THE YEAR 1920.

FINANCIAL.

PERSONAL EMOLUMENTS.

1. The total amount voted was \$35,909, and the total expended \$33,153.94, exclusive of special allowances. The saving was chiefly due to the fact that the new appointments of Systematic Entomologist and Systematic Botanist remained unfilled.

Expenditure was distributed as follows:

behave we		Estimated.	Expended.	Savings.
Federal		 \$30,324	 \$27,345.14	
Perak		 2,352	 2,468.79	
Selangor		 3,233	 3,340.01	
	Total	 \$35,909	 \$33,153.94	 \$2,755.06

OTHER CHARGES: ANNUALLY RECURRENT.

2. The total amount voted was \$13,725, which was distributed and spent as follows:

Federal Perak Selangor		 Estimated. \$6,775 2,950 4,000	 Expended. \$4,957.42 2,915.04 3,671.29	 Savings. \$2,067.58 34.96 328.71
	Total	 \$13,725	 \$11,543.75	 \$2,431.25

OTHER CHARGES: SPECIAL EXPENDITURE.

3. The total amount voted was \$29,900, and the total expended \$8,736.19.

Only \$60 was spent from a vote of \$4,900 for a "Collection of War Relics" as a set of various German guns and other objects were presented by the Imperial Government. Difficulties met with in getting printing done resulted in the expenditure of only a portion of the vote for "Publication of Scientific Results" and there was a large balance on the vote of \$20,000 for a local "Reference Library," it being impossible to select books judiciously within a limited time. The unexpended balances under the last two heads have been revoted for 1921.

The total expenditure on the Museums and Reference Library, therefore, amounted to \$52,960, against an estimate of \$79,534, showing a saving of \$26,574 due almost entirely to new appointments remaining vacant and large balances on items of special expenditure. In 1919 the expenditure was \$35,482, in 1918 \$32,347, and in 1917 \$33,319, excluding special expenditure.

REVENUE.

4. The revenue collected amounted to \$343 made up of taxidermist's fees, \$58; sale of Museum publications, \$154; sale of duplicate specimens, \$15; and miscellaneous reimbursements, \$116. In 1919 the total revenue was \$295, in 1918 \$193, and in 1917 \$182.

GROUNDS AND BUILDINGS.

5. The grounds of both Museums were maintained at a cost of \$779. No trouble was experienced with the Perak Museum, but leaks were persistent in the Selangor Museum.

ADDITIONS TO THE COLLECTIONS.

A .- ZOOLOGICAL.

An expedition was made to Java by the Assistant Director and three collectors who o. An expectation was made to Java by the Assistant Director and three collectors who spent the period January-April in getting together large series of vertebrata from the east, central and western portions of the island. The visit resulted in the acquisition of much material of great value to the Museums for systematic purposes: several new species were obtained and several others were met with in Java for the first time. Press of other work has compelled systematic examination of the collections to be deferred. Special thanks are due to the Natherlands India Government for their courtest in residue and three collectors who to the Netherlands India Government, for their courtesy in waiving customs dues on equipment and stores, for permission freely accorded to collect for scientific purposes and for introductions to local officials.

In March and April, the Assistant Curator and a party of collectors spent three weeks at the lighthouse on Cape Rachado, Negri Sembilan. Satisfactory collections were made but, contrary to expectation, few migratory birds were seen.

In November, a Dyak collector visited Pulo Condore, off the coast of Cochin China, Mr. W. J. F. Williamson, c.m.g., having kindly suggested that a member of the Museums staff should accompany his own collector whom he was sending with an interpreter to that very interesting and little explored island. Good collection of vertebrata and insects were made, and when these have been worked out a considerable advance will have been made in our knowledge of the island's zoology and several highly interesting points settled.

Miscellaneous zoological collections were sent in from Pahang by the Gunong Tahan working party (vide infra). They included a fine male of the beautiful white-crested mountain pheasant Rheinartius nigrescens, Rothschild: the species is at present only known from the slopes of Gunong Tahan and this example is the first the Museums have become possessed of. A soft-shelled tortoise, new to the Museums collection and not yet identified, was also obtained. A large number of Lepidoptera was secured. Mr. E. Seimund further made an interesting collection of river fish and took careful notes of colour: these specimens will eventually be mounted and painted for exhibition. Specimens from Siam and Pulo Condore were presented by Mr. W. J. F. Williamson; from Sumatra by Jonkheer C. F. van Heurn and Heer E. Jacobson; and from Java by Jonkheer W. C. van Heurn. Mr. H. A. Abraham presented from time to time small interesting collections of invertebrata from the Federated Malay States. from the Federated Malay States.

BOTANICAL.

7. Little botanical work was done. The Tahan party preserved several hundred specimens of dried plants from the banks of the Tembeling and Tahan rivers. Mr. H. N. Ridley, F.R.S., C.M.G., again visited the Peninsula, and with the assistance of the Museums Department made various botanical excursions in Selangor and Negri Sembilan. At the end of the year he and the Acting Director spent a few days at Klang Gates, near Kuala Lumpur, and obtained several new species of plants in the peculiar flora covering the sandstone and quartzite cliffs.

A named set of the plants collected in Peninsular Siam and in the Federated Malay States (described in Journal of the Federated Malay States Museums, Vol. X, Part 2) was returned from Kew. The Forest Department presented for exhibition a set of local timbers and some polished walking sticks made from Malayan woods.

ETHNOGRAPHICAL.

January and February were spent by Mr. I. H. N. Evans, Assistant Curator, Perak Museum, at Batavia in studying the large ethnographical collections in the Museum of the Society of Arts. A good deal of information was obtained touching the relationship of the cultures of the Malay Peninsula and the islands of the Archipelago. A number of ethnographical specimens were purchased locally. Loan collections of silver belonging to Drs. R. O. Winstedt and E. N. Graham, and of chutam belonging to Mr. E. N. Hedgeland, remained on exhibition.

PUBLICATIONS.

9. Further "Results" of the Expedition to Korinchi of 1914 were continued in the Journal of the Federated Malay States Museums, Vol. VIII, Part III: papers on the Heterocera and Rhopalocera (pp. 107-160) by Lord Rothschild being published in which sixty-four new species and subspecies are described. Two parts each of Vols. IX and X were issued in 1920. Parts 1 and 2 of Vol. IX contain 22 papers on Ethnography, Customs, Language and History by Messrs. Evans, Winstedt and Sircom. Vol. X, Part I, contains a long paper accompanied by a plate and map by Dr. Malcolm Smith on sea snakes from the coasts of the Peninsula, Siam and Cambodia, largely based on material in the Museums: two new forms are described: Part 2 contains reports by Mr. H. N. Ridley on botanical collections made in are described: Part 2 contains reports by Mr. H. N. Ridley on botanical collections made in Peninsular Siam and the Federated Malay States by the department, by himself in Kelantan and by others elsewhere: in this number more than 125 new species of plants are described.

At the end of the year proofs had been passed for a third part of Vol. X containing papers, illustrated by plates and maps, on the ancient remains and grave at Pengkalan Kempas, Negri Sembilan.

Two papers on Jungle-fowl in which a name is given to the Indian race and one on Viverridae in which two new races are described were contributed to the Records of the Indian Museum.

An account of a second collection of birds made in N. E. Sumatra by Mr. A. C. F. A van Heyst was published in No. 81 of the Journal of the Straits Branch of the Royal Asiatic Society: three new birds are described therein and a number of birds new to Sumatra are Besides publications by the staff for which the Museums are not directly responsible, several articles on Indo-Chinese mammals and birds were prepared for the Journal of the Natural History Society of Siam; but owing to delayed publication did not appear in the current year.

At the end of the year a number of zoological and ethnographical articles were ready for printing.

STAFF.

10. For half the year the Museums remained in charge of a single officer only.

The proper work of the department suffered much through this shortness of staff which was partly due to illness, partly to leave, and partly to the necessity of seconding members to prepare the Gunong Tahan Meteorological Observation Station.

The appointments of Entomologist and Botanist remained vacant locally. Mr. I. H. N. Evans, Ethnographical Assistant, went on long leave on June 1st. The Director, Mr. H. C. Robinson, went into hospital in June and after recovery went home on long leave on August 28th. From June also the department temporarily lost the service of Mr. E. Seimund, Assistant Curator, as he was placed in local charge of the work of constructing the Tahan Station and for the rest of the year spent about three weeks only in the Museum. Several of the Dyak collectors went to Pahang to act as mandors and storekeepers.

I regret to record the death from dysentery acquired at Kuala Tahan, of Charles Ulok, the head Dyak collector who remained on duty in Pahang until his illness had become too far advanced to yield to treatment.

He died in the General Hospital, Kuala Lumpur, on November 23rd. Previous to joining the department in 1903 this man had been for some years on the staff of the Sarawak Museum and was undoubtedly the best native collector in the East.

In April the Malay Assistant resigned and the appointment remained vacant; and in November ill-health compelled the retirement of Mr. T. H. Savage, clerk and caretaker, Selangor Museum, after 14 years' service.

On August 28th the Assistant Director was appointed to act as Director, Museums and Fisheries, in addition to carrying out his own duties.

CONSERVATION.

11. The usual routine work, registration and labelling of specimens, was carried out as far as the depleted state of the staff permitted. Mr. Seimund continued his work on fishes and further excellently prepared examples have been added to the exhibition series. The department was indebted to the Director of Agriculture for the services of Mr. C. B. Holman-Hunt, Systematic Entomologist, for three weeks during which Mr. Holman-Hunt overhauled and put the steadily increasing collection of insects into rough order.

As usual a considerable number of specimens were submitted to the department for determination by institutions and individuals in India, Siam and Netherlands India.

LIBRARIES.

As far as time permitted books were selected from publishers and booksellers' catalogues for the Museum library, the newly instituted Reference Library of works dealing with S. E. Asia and the library of the Malay Studies Committee; and several hundred volumes were purchased. As these libraries serve much the same purposes—i.e., to provide books on local subjects and books of use to local workers, it was decided that they should be combined and books purchased in future from one vote.

GUNONG TAHAN METEOROLOGICAL OBSERVATION STATION.

It had been decided that before proceeding with the building of a sanatorium on Gunong Tahan observations on the weather there should be carried out for a couple of years.

Mr. H. C. Robinson, Director of Museums, was placed in charge of the work of constructing a station for Meteorological Observers on the Plateau.

A set of instruments was ordered and the Colonial Office requested to recruit four naval petty officers to act as observers: the latter were obtained towards the end of the year but remained in England to undergo a course of training at the Meteorological Office, Kensington.

Four roomy huts of sawn timbers and ruberoid were prepared by the Public Works Department.

A member of the wireless staff at Singapore visited the Federated Malay States to test the effectiveness of small portable wireless sets in the Peninsula. The experiment as far as it went was favourable, but it was not exhaustive.

Two routes to Gunong Tahan were considered: one by land, largely along the valley of the Kechau river; the other by water up the Tembeling and Tahan rivers: the latter was adopted since a greater weight of supplies can be transported per man by water than by land.

In June, Mr. Robinson visited the Tembeling to make arrangement for transport and labour: on his return to Kuala Lumpur he fell ill, entered hospital and thence proceeded home on leave. Thereafter control of the undertaking devolved upon the Assistant Director. Mr. E. Seimund was put in charge of field-work in Pahang.

Several tons of rice and dried fish were procured and tinned up; and with other stores, the huts and cement for foundations, camp equipment and sundries, were transported to Gunong Tahan by rail, canoes and carriers, the latter comprised of local Malays and score of Dyaks recruited from Sarawak. Depôts were built at Kuala Tahan, Kuala Teku and at Wray's Camp, 3,300 ft., on the mountain; Dyak Museum collectors acting as storekeepers. Many dug-out canoes were built and purchased: numerous boats being called for as they were rapidly worn out by the rocky bed of the river or were lost in the rapids and floods. By the end of the year the depôts along the route were furnished with provisions and three huts had been erected on the Plateau at a height of 5,400 ft.

The work was carried on under considerable disadvantages: during a long drought the water of the river fell so much that it was difficult to drag the canoes over the rocky bottom: later continuous rain caused heavy floods and currents almost too strong for the canoes to proceed against.

The rivers above Kuala Tahan are uninhabited, and at first the health of the personnel was good: later a number of men suffered from diarrhoea and boils, and infections of malaria were common.

Sums totalling \$45,211 were debited against the vote for the Tahan Station.

C. BODEN KLOSS, Acting Director of Museums, F.M.S.