

Edgar R Waite.



No 56.

1910.
November 1st
to

1911.
December 31st.

AMS587/53

November.

1. Tues.

Saw a fine example
of *Lepidothynnus*.
(*Gasterochesius*) in
town & bought it for
50p. The Canary laid
a second egg.

2. Wed.

Had a third, which
I temporarily removed.
Cast the *Lepidothynnus*.
Spengler being absent
I acted as Secretary
to the C.P.I. meeting.

3. Thurs.

Wrote to Wilfrid re
Triumph Motor.
Spent evening at
Cresswells.

4 Fri

Cast the *Seylliothinus*
sent by Hamilton.
As the Canary has
not again laid I
replaced the third
egg -

5 Sat.

Made drawing of
Notornis from 2 of
Kulemans illustrations

6 Sun.

Went with Brauer
to the racecourse in
view of a visit to-
morrow. Shaved off
my beard which
I have grown since
the time of the
trawling expedition.

Mr. Horsley came in
the evening.

7. Mon.

To Museum, thence
with Brauer to the
races. We patronised
the "tote" winning on
the first 3 races. I
gave away with 10/-
in pocket & spent it
with Rose at theatre
Nellie Stewart in
"What every woman
knows".

8. Tues.

Sent letter etc. to
Chilton who is in
Wellington, asking him
if he can help on
the application for the
publication of the

Trawling report.

9. Wed.

Letter from Mr. W. Hope brought in a longbill plover, the first fresh specimen I have seen.

10. Thurs.

Letter from Auderton he is sending me some flatfishes. for the trawling report.

11. Fri.

Benham called on his way fr. Wellington Took Rose + Claude to the Agricultural Show in afternoon.

12 Sat.

Library Committee
C.P.I. Members of
Council asked Farr
to afternoon tea on
Monday. No other
send-off was possible
he leaves on Tuesday.
Took Rose to "Sweet
Hell"

13 Sun

Brauer came to
dinner, we had a
cycle ride afterwards.

14 Mon.

I got together all
the members of the
C.P.I. Council except
Speight who is away
at afternoon tea -
Farr being our guest.

Spent evening at
the Cresswells -

Answered an Advt.
Motor cycle wanted
& another phonograph
for sale, as Rose
would like the latter.

15. Tues.

Bought the phonograph
as follows: - £8 =

"Home" Phonog. —

horn & crane. —

Reproducers for
2 & 4 minutes.

Recorder.

Records —

Nat. tone

(2 minute recorder ~~Model C.~~)
4 " " Model. H)

wrote to Wilfrid &
obtained B/D for
£20. something to go
on with in respect
to a "Triumph" motor.
Paid subscription 2/-
C.P.I.

17 Thurs.

Sent photos of Rose
& Claude to Mrs W.
Wilfrid and Belle.

18. Fri.

Council meeting C.P.I.
Mrs Bridge and her
girls came to hear
the phonograph.

19 Sat

Commenced to make
a case to hold the
"Records. Spent

evening at Creswells.

20 Sun.

Finished case for the
"Records" Brauer came
to tea and Horsley
afterwards.

21. Mon

Drew £50 from bank
& gave to Brauer to
buy wool. Letter from
Wilfrid.

22 Tues

Bought Circular saw
& bench complete for
£2 from W^m Kent.
She had previously
asked me £4. 10. 0.
5 saws are included.
Letter from Allan
re Stead & fishes

* one from Hedley
asking me for a
paper for the A.A.
A. Sci. Sydney meeting.

23 Wed.

wrote to Allan, &
thought of sending
a paper on the
"Macleayan types of
Australasian fishes"
which I have in
hand, to the A.A.A.S.
Haynes had a letter
from England ack-
nowledging receipt
of order for the 3
bicycles, so that
they should be here
for Christmas.

24 Thurs.

wrote to Ell asking
him the position of
the Minister respecting
the traveling report.
Took the phonograph
to Mrs. Cresswells &
gave the old lady
a little variety.

Commenced removal
of Whales' skeletons
from N. Z. Room.
Received a letter from
Ethel Vause, in reply.

25 Fri.

Brauer came in the
evening and brought
some Amberol Records
which we put on the
machine. Wilson

Garrard and Lillie
of Terra Nova came
to bid good bye.

26 Sat.

The Antarctic Exped.
left this day. As
we found that a
special recording horn
was necessary, obtained
one. Took Claude to
pictures. Rose going to
the theatre.

27. Sun

Wrote to Dr Vause,
enclosing Ethel's letter.
The Canary commenced
to lay again. Spent
morning making a
travelling case. Brauer
came to tea.

28 Mon.

Brauer brought some new records which we tried & rejected most of them. The size of the whale is again to the fore see 24th Oct. 1906 (54).

29 Tues

wrote Hedley & gave him title of paper "Macleayan types of Australasian fishes". Finished my case with nickel fittings. Brauer called, Rose went to theatre - Sent reply to the whale letter - Canary sits 3 eggs -

THE OKARITO WHALE.

TO THE EDITOR OF "THE PRESS."

Sir,—Some time since it was claimed that the whale of which the skeleton is now in the Christchurch Museum, was the largest yet found! I then stated in your columns that I believed that I had seen a yet larger specimen, 150 feet long, in the Copenhagen Museum. This was derided by one and all. I then wrote to a Danish friend to ask him for information on that point. Owing to my friend's answers to my query being wrongly addressed, the matter went to sleep until we received a letter to-day from him, giving the information on the point which I now enclose. I will ask you to be good enough to publish it for two reasons. First, that the information is very interesting, and secondly, that it also serves to clear me of the possible charge of being a "romancist." Yours, etc.,

A. W. TESCHEMAKER-SHUTE,
Avondale.

November 18th.

"I have again to-day been to the museum to verify the measurements of the whale in question. It is a blue whale (*Baleenoptera Sibbaldii*), and only the head is exhibited, the whole skeleton being too immense to be contained in a building. The head is 19 feet long, and weighs 3200 kilograms, 6400lb; length of whale was about 150 feet or 60 meters, equal to 60 yards. It is the largest known animal in the world or in existence. There are other skeletons of whales in the museum, which has the most complete collection in the world, but none that can compare with the first-named."

30. Wed.

Went with Brauer
to vocal and organ
recital - Paid £1.
Subscription to the
A.A.A. Science -

DECEMBER.

1. Duro.

wrote Etheridge in
reply & to Allan of-
fering to lend my
negatives of 2 sharks
in Nora Owen Report.
wrote Editor "Press"
my reply to whole
letter not having
been published. Sold
the cycle trailer for
£4-10-0 I had paid
Farr £4. & put in
new inner tubes -

Rate realisations are

Rathe	5. 0. 0
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Drawings	2. 2. 0
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Trailer	4. 10. 0
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To be applied to a new
motor cycle.

2 Fri.

My letter in reply
published (below.).

Finished hanging the
Whales' skeletons. I
wrote descriptive
tickets & commenced to
make drawings to
accompany them.

Brace came in the
evening and brought
some instrumental
solo records.

3 Sat.

Spent afternoon at
Museum making draw-
-ings of Whales for
my new labels - &
evening at Cresswells.
Bought new saddle
for cycles - 12/6

[16]

THE OKARITO WHALE.

TO THE EDITOR OF "THE PRESS."

Sir,—Under this heading in to-day's "Press," Mr Teschemaker-Shute refers to the claims made as to the unique size of this now famous whale. He enclosed a letter received from a Danish friend, which, in effect, reads:—The head of a blue whale in the Copenhagen Museum measures 19 feet in length, and the total "length of the whale was about 150 feet, or about 60 meters, equal to 60 yards."

The following extract from a letter sent to me by Dr. Hector F. E. Jungersen, Director of the museum in which the skull in question is preserved, should be conclusive, and should satisfy all that the claims I have maintained were not made without some knowledge of the subject. "The Zoological Museum of Copenhagen possesses one of the most renowned collections of whales in the world, but I need hardly say, no skeleton of that formidable length of 150 feet. Of *Balænoptera sibbaldii* (that is the blue whale, and the same species as the Okarito specimen) we have a complete skull 19 feet in length; the animal measured 74 feet, but the remainder of this skeleton is not in the museum."

The measurements of the head of this whale, as rendered by the friend of your correspondent and Dr. Jungersen are identical, and as the head in adult animals is fairly proportioned to the total, the ratio being about one to four in the blue whale, it should be obvious that the Okarito whale, with a head 21 feet in length, is larger than the Copenhagen one, whose head is 19 feet long.

There is some evident discrepancy in the figures of your correspondent's friend's. 150 feet is only 50 yards, while 60 metres is more than 65 yards, or nearly 197 feet. I fear that the measurements made by this gentleman are on a par with the accuracy of his calculations.—Yours, etc.,

EDGAR R. WAITE.

Canterbury Museum,
November 29th, 1910.

1000 1000 1000

4 Sun.

Made & labelled
cases for magazine
articles. Brauer looked
in in the morning &
we mended a tube
puncture. Horsley
spent evening here &
we ran the phonograph.

5 Mon.

wrote monthly report
for Museum Committee.
& finished drawings
of whales.

6 Tues

All went with Brauer
to pictures, "launching
of the Olympic".
Received Alepisaurus
from Taikowra.

7. Wed

Telegram from Cockayne
has result went to
see Ell. The Minister
has not sanctioned
continuation of the
Report but Ell. is
still hopeful. Museum
Committee meeting
Saw the Cresswells
at the train, en
route for Auckland.
Meeting of C. P. I
(Annual) in the
evening. I exhibited
the Stepisaurus -
Found that Claude,
had broken the
spring of the phono-
graph -

8. Thurs

Took barrel or
drum of phonograph
to town to have a
new spring fitted, to
cost 9/-. Claude went
into camp with the
school cadets.

9 Fri

Refitted phonograph
but as the spring
came off the catch
I asked Fleming to
give me a hand &
we fixed it up.

11. Sun.

Went for a ride
with Brauer & looked
at some houses.
Spent evening at
the Prices.

12 Mon.

A large whale 75 ft.
stranded at Motunau
communicated with
Stead. A violent storm
rain & thunder at
noon. Meeting of
Lakes Committee. The
Museum Committee
reported that Ell
had suggested that
the trapping report-
be again submitted
to the Minister in
May next !!!

13. Tues.

Took Rose to see
some houses

On Friday evening a whale 75 feet
long was stranded at Motunau, a few
miles north of Amberley. The whale
is now in possession of Mr J. Hender-
son, a well-known settler at Motunau.
The whale was slaughtered and the car-

14. Wed.

My photo of the
new bird case. NZ.

Robins appears in
the "Weekly Press".

Brauer came in the
evening & we looked
at Ford's house in
Holly Rd.

15. Thurs.

Mr Edgar R. Waite, Curator of the
Museum, had arranged, in company
with Mr Edgar F. Stead, to pay a visit
to Motonau, with a view of seeing the
whale which has been stranded there.
The party was to have left yesterday,
but the rivers are too high, and the
visit has, therefore, been postponed
until they have fallen sufficiently.

Wrote to Wilfrid &
sent £5. towards
the Motor Cycle. Am
now preparing the
"Maclagan types
of fishes" 10

Claude returned from
Camp.

16. Fri.

Anniversary Day. I
remained at home,
wet, covered some
discoloured white
mounts with green
wall paper. and
framed two pictures.

17 Sat

Finished typing the
"Macleayan types of
fishes." Sold the
Motor-bicycle connection
to J. Clegg for £2.
See Oct 14th. 1909.
Went with Claude +
Haynes after tea to
Redcliffs after rabbits.
fearfully windy.

We had 3 rifles.
My. - Westley Richards
Haynes, - Stevens
Claude. (Hank) B.S.T.

18 Sun

Brauer stayed dinner.
he is "off" buying
property to let. In
the evening Bridges
family came.

19 Mon

Left at 2.30 with
Edgar Stead & motored
to Tipapa - stayed
the night with H.
Acton Adams.

20 Tues.

Visited whale at
Motonau & returned
to Christchurch. I
wrote article & took

it to Press Office - a
letter from Pawson
inviting Claude for
Xmas holidays.

21. wed.

My article on the
whale printed. I
wrote Pawson sending
Claude on Friday.
Developed 11 plates
taken during the
whale trip. Letter
dated Nov 2nd the
3 bikes ordered from
Birmingham had
been despatched. The
Misses Price came
in the evening, they
will spend holidays
at Little Akaloa.

Wrote to ascertain
if Rose could also
be accommodated.
Tuckland Press
published picture of
young Hutton-bird
egg + accepted the
Laughing Owl photo.
Brauer called, he
is going on holiday
to the North Island.

22 Thurs

Letter from Etheridge
acknowledging Pawa
shells - Rent from
Sydney. 'Nature' (
) contains
review of sub-antarctic
publication by Dewar.
not very helpful.

Sent Introduction &
specimen sheet of
Macleayan types of
fishes for a.a.a.s.
to Hedley.

THE MOTONAU WHALE.

(By Edgar R. Waite, F.L.S.)

(SPECIALLY WRITTEN FOR "THE PRESS.")

Last Monday week Mr Shadrach, of Christchurch, returned from Motonau on his motor cycle, and encountered the full force of the thunderstorm which visited the district on that morning; he brought with him a small piece of whalebone taken from an animal stranded at Motonau on Friday previously. The whalebone submitted to me was taken from near the front of the mouth and was of pale yellow colour. The whale was said to be over 75 feet in length, and though in no way a rival to the Okarito whale, was doubtless of sufficient interest to make a closer acquaintance desirable. Knowing that, since his experience with the leviathan of the West Coast, Mr Edgar Stead has developed a special regard for big whales, I at once communicated with him, and we arranged to, if possible, visit Motonau together. In consequence of swollen rivers, and subsequent respective engagements, it was not possible to carry our intentions into effect until Monday last, when we journeyed from Christchurch. Motonau lies nearly 70 miles north of this city by road, but during the wool season can be reached in small vessels trading there. I am told that, on a clear day Motonau Island, which lies a mile, more or less, from the mainland, can be seen from the heights above Sumner. It was on the rocks immediately inside the island that the whale was stranded, the precise locality being influenced by the interested action of Mr Henderson, of Motonau, the owner of the animal. He noticed the carcase rolling in the surf a few hundred yards northward of the mouth

of the Motonau river, and fearing that it would be washed into the estuary, close by which his dwelling stands, managed to make fast a stout hawser to one of the moppers, showing above water. The Manilla rope snapped like sewing cotton several times as the huge body rolled in the surf, but by persevering he finally succeeded in directing it towards the rocks, where the waves cast it ashore.

Having previously interviewed some of the residents of the district, we were, in a degree, prepared for some measure of disappointment. Owing to the time which had elapsed between the stranding of the whale and our visit, Mr Henderson had succeeded in greatly altering the appearance of the creature. He had removed all the whalebone, and much of the blubber. He had also cut off the tail, hoping that by so doing he would be able to turn the body over. The hope was vain, but the subsequent peregrination of the one-time powerful propeller, showed that his fears as to the undirected stranding of the complete animal were well founded, for the tail was washed into the mouth of the river, and now lies fixed close below Mr Henderson's house.

The whale had evidently, very evidently, been dead for some time prior to its helpless visit to Motonau. It was in a somewhat odorous state of decay, and the back, which had been undermost, was covered with a luxurious growth of seaweed, which must have rooted since the animal's death. The lips and tongue, which latter was hanging out of the mouth, had been freely eaten by sharks, and Mr Henderson told us that there were numbers about the carcass when he hitched his motor launch to it. There can be little doubt that it is owing to the position of the carcass in the water that the whalebone was saved, otherwise it would have dropped out of the mouth, as in the unfortunate case of the Okarito whale, in which the attachments of the baleen

had also rotted away. The whole of the whalebone, more commonly spoken of as "bone" merely, was secured, and though not of great length, is in excellent condition, and consists of a very large number of marketable plates. Mr Henderson intends to rescue the jaw-bones also, if possible, and then hopes to again set the carcass adrift, a hope which Mrs Henderson cordially echoes, explaining that twice, at least, favourable (or unfavourable) winds have wafted odours of dead whale into her house.

It will be understood that material for absolute identification was not very promising, still something was left, and the following features were at any rate ascertained. The whale was a large female, measuring, according to Mr Henderson, who carefully taped it while still tolerably entire, 68 feet 9 inches in length. The tail is 17 feet across the flukes. The body is black above and white or yellow beneath. The baleen is relatively short, not more than three feet in the middle of the mouth. The mammal had a low fin on the back, but owing to the peculiar position in which the carcass lies its exact situation relative to other important features cannot be ascertained. These characters, together with the fact that the throat and chest are closely plaited, enable one to identify the animal as a Rorqual. Four species of Rorquals are definitely known, namely the Blue Whale, Rudolphi's Rorqual, the Pike Whale, and the Common Rorqual. Though not in entire agreement, the sum of characters indicate that the Motonau whale was of the last-named species.

(Continued over leaf.) [31]

23 Fri.

Claude left for
holidays at Mount
Somers by midday
train. Bristed took
only 1 photo (baleen)
of the whale - Sent
others to Auckland.

I was sorry not to be able to confirm Mr Henderson's hope that the animal might prove to be a Right whale. The Right whale receives its peculiar name from the whalers because it is the right or proper whale to attack, yielding "bone" 12 or 13 feet in length, and therefore very valuable; moreover, the oil is more abundant and of superior quality than in the Rorquals. In order to accommodate this great length of "bone" the head is much arched, and though at first sight there seems to be no correlation between the arched head of the Right whale and the throat plaits of the Rorquals, a feature before mentioned, a little enquiry will show that the one, to some extent, takes the place of the other. The physiological meaning of these throat and chest folds is to be sought from the manner in which the whale takes in its food. In common with the Right whales, the Rorquals take in huge masses of small crustaceans, or crab-like animals and other small organisms, which are swallowed after the accompanying water is strained off through the whalebone. But in the Right whales, the mouth is especially huge, owing to the arched form of the skull, a feature so characteristic of these animals, and one which immediately distinguishes them from the Rorquals. To compensate for the reduced size of the cavity of the mouth, the equally colossal Rorquals can expand this cavity by means of the numerous folds of skin, which enable it to be puffed out, and when the need for this increase in mouth capacity is passed, the folds reform.

24 Sat.

Rose received letter from Little Akaloa, arrangements for the 29th confirmed. Saw Mr. Price, they will not leave until 31st. The Canary is sitting on 4 eggs, her previous complement being 3.

25. Sun.

Joined the Price family at the Square & went to New Brighton, had 4 O'clock tea with Major Pietscha and Mr. Joostou. The ladies of the party returned with us & helped us to dispose of the goose -

26. Mon.

Kept as Xmas day.

Took Rose to "The Lion and the Mouse".

27. Tues.

Kept as Boxing Day
I went to Museum
with Rose to the
Bridges at night.

28. Wed.

Packed up & sent
off trunk. Haynes
changed my single
410. gun for a
double barrel. at
extra charge of 5/-
only !! The single
frequently missed
fire. bought stock
of cartridges for

rifle + gun and
borrowed Frank's BSA.
rifle also. - Let go
the Greenfinch, the
Hemmings will feed
the Canaries and
goldfinches.

29 Thurs

Left with Rose by
8.55 train + took
"John Anderson" for
Little Akalou calling
at Menzies Bay.
Put up at "Willows".
Mr. McIntosh.

30 Fri.

Mrs. + Miss Price
came overland Mr.
Robinson, staying at
the house, took me
for a drive.

21. Sat.

Two messes Price came
by the "Monica" we
went for a swim.

During this holiday
I visited the cheese
factory early every
morning and drank
a cupful of "starter"
which I like. Also
had a swim when
the weather was warm.
Made w-color sketches
played tennis and
billiards. Visited the
largest dairy of the
district. (Mr
where cows are machine
milked. power being
derived from pelton
wheel. Climbed many
of the hills in the
district. took a few
photographs. Had a
little rifle practice

1911.
January.

1. Sun.

Made color sketch,
including the church.

2. Mon.

Went to Cheese factory
& saw early morning
processes. - Larvae &
pupae of Red Admiral

on nettles.

3. Tues.

To factory & saw
further processes Met
Ceil Price & went
round to Okan's &
Le Bous Bay in the
John Anderson by
courtesy of Captain.

4. Wed.

Shot Kingfishers, walked
to Chorlton.

5. Thurs

Telegram from Speight
decided to remain
till Saturday, when
all will return.

6. Fri

Went bird nesting
with boys. found
many nests of
goldfinches, Chaffinches
Blackbirds, Thrushes &
Greenfinches. Shot
some Rifflemen.

7. Sat

Returned to town
calling at Menzies'
& Pigeon Bay. caught

5.15 pm train. Went to Museum after tea. Letters included one from Minister for Marine. He places £250 at my disposal for publication of Drawling Report which may be printed here -

8. Sun.

Brauer called. I spent morning at the Museum. Replied to Adots in Saturday papers.

9. Mon.

In consequence of Adots. I exchanged my film camera + 15/- for a 1/4 plate.

"Halborn" reflex.
Anything will be
better than films.

10. Tues.

Drummond sent me
some insects to iden-
tify and I wrote
an article for him.

11. Wed.

wrote to Minister
in reply. Received
£1. from Press for
whole article. Spent
 $\frac{1}{3}$ of it in taking
Rose & Brauer to
Wirth's circles. 3
of the Prices also
gone - a Hippopotā-
mus was the "Star"
of the show.

12 Thurs

Letter from Hedley
ack. paper for the
A.A.A.S. - Received
advice that bicycles
would arrive next
week. Now turning
to the fish drawing
again - Finished
Pelotretis. 'x'

13 Fri

Got Caulopsetta and
Cepola on the way
The 'Times' published
my article on the
enemy of the wood
borer

(over).

·x

Sent £36. 2. 6 to
Dibb Co (re Mrs W.)

THE WOOD-BORER.

HAS A NATURAL ENEMY BEEN
DISCOVERED?

(By EDGAR R. WAITE, F.L.S.,
Curator Canterbury Museum.)

In the "Lyttelton Times" on January 3 there was published an interesting paragraph dealing with observations relating to the disappearance of the wood-borer from dwellings on Banks Peninsula. Mr J. Buckland, Mrs J. S. Bruce and Mr T. E. Taylor, M.P., have all noticed a marked diminution in the amount of dust thrown out from the tunnels of the borer, and this is ascribed to the operations of a small insect which is becoming common in affected areas. Mrs Bruce appears to have been specially interested, for she noticed that as the newcomer increased in numbers the borer decreased. It would also seem that she had actually witnessed the insect placing its ovipositor into the burrows of the borer, and if this is so there can be no doubt that the insect in question is a natural enemy of the borer, and as such should be encouraged to the greatest possible extent.

A few of the insects have been placed in my hands for examination, and I find them to belong to a parasitic family, the members of which live at the expense of other insects. They are quite small, being about three-sixteenths of an inch in length, and the females possess an ovipositor of about the same length. They are dark brown in colour, with transparent wings, clouded with grey markings; the antennæ or horns are long, and the extreme length, from the tips of the antennæ to the end of the ovipositor, is nine-sixteenths of an inch.

The general conformation of the insects and the known habits of similar types indicate that they are parasitic upon concealed larvæ, and I have no doubt that they prey upon the wood-borer as detailed by Mrs Bruce. Until a careful and extended examination has been made at the seat of operations it is not possible to say whether the parasite attacks the eggs or larvæ of the borer, and, although the small size of the insect suggests that it may be unable to reach the grubs which have penetrated far into the wood, it would be quite effective in the early stages, and on this account, therefore, specially valuable.

A general account of the life history of parasitic flies will greatly assist in understanding the probable operations of the one under notice. The little insects submitted to me are of the group commonly called ichneumon flies, and belong to the Hymenoptera, which great order also includes ants, bees, wasps, sawflies and other four-winged insects. Two main divisions of the order are recognised. The first comprises vegetable feeders, and the insects agree in having the abdomen broadly united to the thorax. Sawflies are the best known examples. Their larvæ are familiar in orchards, where they are sometimes very destructive. The second division of the Hymenoptera comprises those insects of the order which have the two portions of the body connected by a more or less slender stalk, so that the abdomen has much freedom of movement, facilitating the operations of boring and stinging, so characteristic of its members. This structural peculiarity will be familiar when we recall the waist of a wasp, but it is much more marked in some of the ichneumon flies, which we may consider more particularly. The larvæ or caterpillars of all these flies are parasitic, preying upon other insects, particularly butterflies and moths.

Ichneumon flies are popularly little known, and though, perhaps, of greater economic value than any other of

the great groups of insects, have been the most neglected by naturalists. It has been calculated that 200,000 species are known, but no one can say how many still remain to be described, for they abound in almost all parts of the world, and, considering that new arrivals of large size like mammals are still being found, it follows that the unknown insects must be reckoned by tens of thousands, and of these a large proportion are doubtless ichneumon flies.

As might be expected in such a large and widely distributed family, considerable diversity exists in the general form and proportions of the bodies, but, being adapted for similar modes of life, they have many and easily recognisable features in common. Perhaps the first characteristic which would attract the attention of an observer is the restless and fussy movements of an ichneumon fly as it runs up and down any object upon which it may have settled. The wasp-like waist has been referred to, but the body is usually much more elongate than in wasps. The peculiar long tail-like ovipositor forms a very striking feature, the length of which may be several times that of the entire insect—six times in one species. The ovipositor, indeed, may be four inches long. It is the tube through which the eggs are passed into the body of the host.

The importance of ichneumon flies in the economy of Nature can scarcely be realised. If it was not for the beneficial actions of these insects our fields, orchards and gardens would be hopelessly ravaged by grubs and caterpillars of many kinds, and an entomologist who attempts to rear insects, especially butterflies and moths, through their various stages, for purposes of study, or for display in his cabinets, must always count on heavy loss owing to the tolerable certainty that at least one ichneumon fly has found the colony of eggs or young caterpillars sooner than he has. This will be best understood

and appreciated by giving some account of the life-history of ichneumon flies. The length and nature of the ovipositor gives some clue to the habits of the insect. For example, the females in some groups possess an ovipositor which hardly projects beyond the tip of the abdomen. It may be assumed that such deposit their eggs within the eggs of other insects, or in grubs and caterpillars which are readily accessible, and there can be little doubt that the hairs or spines with which the bodies of some caterpillars are provided are developed mainly as a protection against the attacks of their arch enemies—ichneumon flies. Females which have long ovipositors seek concealed larvæ, such as the grubs of wood-boring beetles, and between these extremes every gradation occurs suited to the particular habit of the insect.

No stage of an insect's life is safe from the disastrous attentions of these enemies. They attack all, from the eggs to the perfect insect, and during their development are liable to be preyed upon by many different ichneumon enemies. Thus, if the egg escapes from the parasites peculiarly adapted to infest eggs, it may in its larval state fall a prey to one of the groups habitually laying their eggs in caterpillars, and it may be said that, as a caterpillar, the insect is most prone to attack. If, however, it escapes thus far, it is still liable to destruction in the pupal or chrysalis stage, or again on assuming the perfect state. If infested in the adult form the insect would be debarred from laying eggs and thus continuing its species. One moth is known to be subject to the attacks of sixty-three different kinds of ichneumon flies.

The eggs of insects are usually very small, and when an egg has been selected by an ichneumon fly a single parasitic egg only is usually deposited therein, for the egg of the host, small though it be, has to supply all the nourishment which the little grub will receive until it attains to adult life. Similarly, a large ichneumon will deposit only one egg in the body of a caterpillar, while a smaller one may lay several eggs therein, the host caterpillar, as it increases in size, supplying food sufficient for the growing parasites. This increase in size of the victim, notwithstanding the fact of the parasites sucking its juices, is not the least remarkable feature of the economy of the ichneumon fly. On referring to most text books on insects, a statement will be found that the parasite is said to feed upon the substance of its host, avoiding the vital parts until the caterpillar stage of the parasite is completed, when, as its last act, it kills the creature upon which it has been nourished.

More recent investigations show that this is not true. The parasitic Hymenoptera are chiefly occupied in destroying the tribes of vegetarian insects. The parasites do this by the simple and efficient device of dwelling in their bodies and appropriating the nutriment taken in. The parasites do not, as a rule, eat the structures of their prey. Many of them, indeed, have no organs that would enable them to do this; but they absorb the vegetable juices, which, in a more or less altered state, form the lymph or so-called blood of the host. The caterpillar could, perhaps, starve them out by a judicious system of abstention from food. Instead of doing that it adopts the suicidal policy of persistent eating, and as the result of its exertions furnishes sufficient food to its parasites, and then dies itself through indirect starvation.

There are many astounding features in the life-history of ichneumon flies,

and one of the most surprising is the phenomena known as hyperparasitism. Parasites developing within the body of a larger host are themselves subject to attack by smaller species. The female, discovering that a caterpillar is infested with parasitic larvæ, passes its ovipositor through the integuments of the original victim into the bodies of the parasites sucking its juices. Nor is this all. We are familiar with those remarkable productions of the Orient, the ball-within-ball carvings in ivory, seven or even more balls, richly carved, being cut free, one within the other. Something analagous exists in the economy of the ichneumon flies. The cases of secondary parasitism, in which, as already described, another species attacks a primary parasite, are extremely numerous. It is also known that tertiary parasitism occurs, while one writer is of opinion that even quaternary destruction is not outside the range of probability. The checks and counter-checks to the development of insect life, therefore, are remarkably complex.

TO THE EDITOR.

Sir,—In regard to the announcement in your columns recently of the discovery at Akaroa of a natural enemy to the white pine borer, will you allow me to venture the opinion that the insect discovered is simply the matured beetle emerging after passing through its larval stage? During this stage as a small white grub with horny mandibles it works long tunnels through white pine and the sap of other native timbers, the resulting dust being ejected at the end of the tunnel. Of course when the grub has changed to the beetle stage and emerged there is no more dust at that "tip."—I am, etc.,

CHARLES CHAPLIN.

St Albans, January 11.

14 Sat.

Called on Beken in
afternoon he showed
me over his new
house + workshop.
Finished drawing of
Cepola aotea.

15 Sun.

To Museum in the
morning. Brauer
came to dinner. We
went to the Prices
in the evening.

16 Mon.

After giving the
motor a rest I got
it on the road again
Read final proof
of fish paper in
Proc. N. Z. Inst.

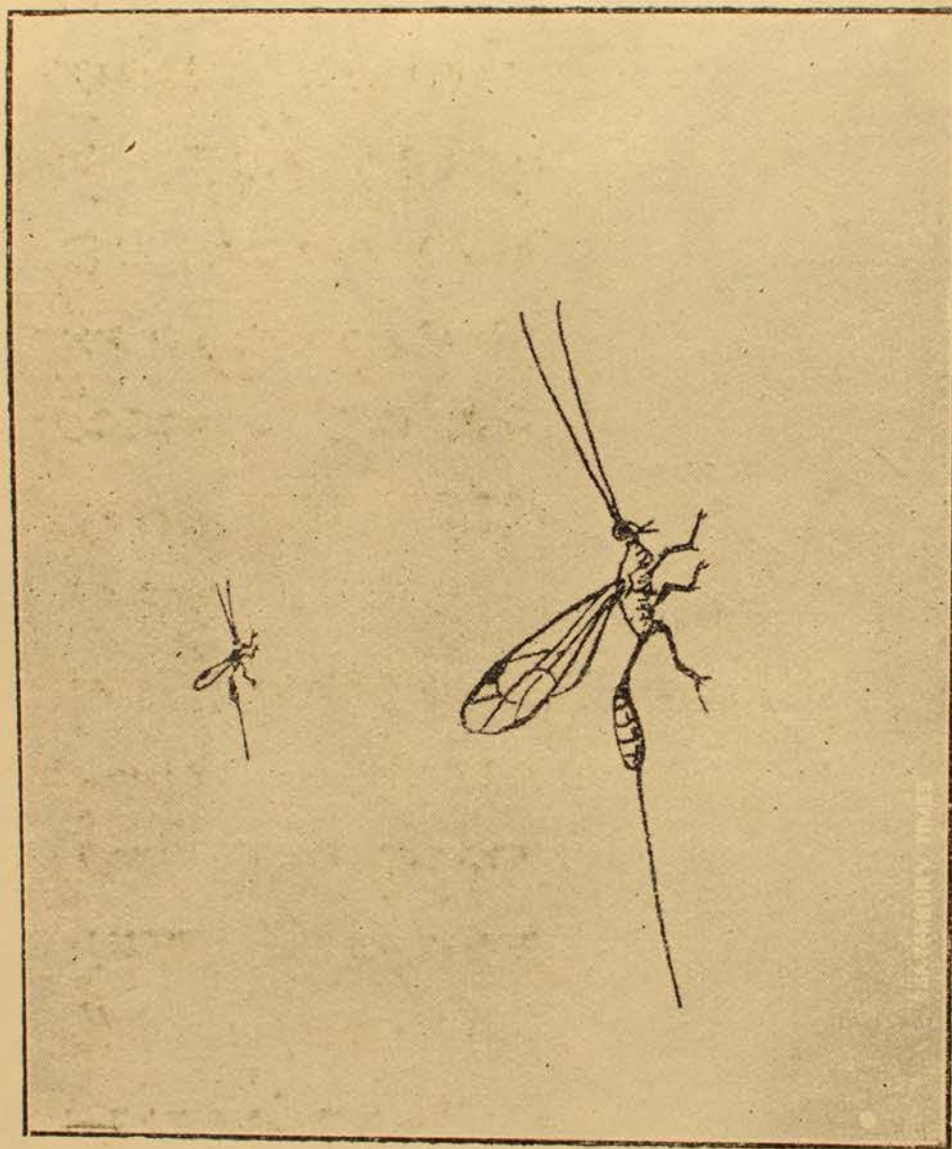
17 Tues

Paid Income Tax
£3. 4. 0. Brauer

Came in evening.
Finished drawing
of Rexea & commen-
-ced Merluccius,
the outlines having
been previously
prepared by Frank

18 Wed.

My article on the
wood-borer and il-
lustration of the
Ichneumon appears
in Canterbury Times.
Took Rose to the
pictures. Finished
drawing Merluccius.



THE WOOD BORER'S ENEMY.

It is reported from Akaroa that a natural enemy of the wood-borer, which has caused much destruction to buildings, has been discovered. A few days ago Mr T. E. Taylor brought specimens of the insect to Christchurch. They were submitted to Mr Edgar R. Waite, curator of Canterbury Museum, who states that the insect is an ichneumon fly. He has drawn a representation of it for the "Canterbury Times." The upper figure represents the fly in its natural size, and the lower figure is magnified about four diameters. An article by Mr Waite, dealing with the fly, is published in another column.

19 Thurs.

Commenced drawing
of Coridodax. We
have inspected many
houses of late &
to day I saw one
which took my fancy.
Went with Rose later
& decided to sub-rent
it, the present tenant
(Olivier) will not
vacate until March.
House corner Clare
Rd & Bristol Street,
rent. £60. Miss &
Clara Allan came
in evening. Roach
who has a flute
for sale called
to see me as I
had communicated

with him in respect
to Jack Russell who
lost the 1867 patent
(which I sold to him)
during transit from
Sydney. Arranged to
have 'a blow' with
Roach on Monday

20 Fri

Museum Committee
authorised me to
obtain prices for
printing the 'Record'
An oppressively hot-
day. Took train to
Summer and back
with Rose in the
evening

21 Sat.

Exchanged plumbers'

16
Screw-cutting tool
for small set of
Stock & dies. To the
Princes' after tea and
took some photos.

22 Sun.

Morsley came in the
evening & I put on
my newest records.
Peer Gynt. - Rhapsodie
(Ritz.) etc.

23. Mon.

Spent evening with
Roach, flute duets
etc. he has some
good music & plenty
of it.

24 Tues.

Letter from Wilfrid
re motor bike, in
reply to mine of
3/11/10. - Claude
returned from Mt
Somers, minus his
luggage, left at
Ashburton. Finished
drawing - *Caulopsetta*

The markings of
Coridodax necessitate
a fresh specimen.
wrote to Wilfrid.

25 wed

Following the breaking
of a tooth, Rose
had the four upper
incisors drawn.

Commenced drawing
Rhombosolea tapirina

wrote Nellie Beale
and Fanny Bowling.

26 Thurs.

The 3 cycles arrived
& we unpacked the
case at the Museum
Spent evening at the
Prices'. Received the
various lists of
additions to Water-
house's Index Zoologicus
from Dulau which
I had ordered.

27. Fri.

Fitted cycle together

28 Sat.

Not well.

29. Sun.

Visited Dr. Liver
trouble.

30. Mon.

Roach lent me
some flute music
& I lent him one
of my bound series.
Received estimate for
printing Records III
from Whitcombe and
Tombs.

Text

plates (20)

Brauer came in the
evening.

31. Tues

Took Rose & Claude to
"What happened to
Jones" the second
time I have seen it.

February.

1. Wed.

Letter from Ollivier
he proposes to let
me the house from
March 7th. Called
on his landlond &
learned that all
was satisfactory &
delivered notice to
quit to Calvert to
take effect Mch 7.

2. Thurs.

Have now identified
4 Rhombosolea. They
were considerably
involved. Received
Museum Microscope
& my lantern slide
cabinet from Cussons,
Manchester. As

I treated Brauer to
the circus he took
Rose & self to the
"Message from Mars".

3. Fri.

Bought new books for
Claude. Now writing
Outcome of the
trawling Expedition
Calvert (yesterday)
accepted my notice
to quit on March
7th without demur.

4. Sat

Fitted new top to the
circular saw bench.
Called on Beken got
prints from negative
of Miss Price & took
them in the evening

5. Sun.

Spent morning at the Museum, answered 3 adts. Motor cycles wanted - Wrote upon flatfishes in afternoon & evening.

6. Mon.

Went to exhibition of work at School of Art.

7. Tues

Letter from Wilfrid acknowledging £20 towards Motor Cycle.

8. Wed

Bought a gas stove for £2 for the new house. We pay $2/6$ monthly for hire of present one. The Bridges came - Cards.

9 Thur
Had a bath made
to hold 2 bottles for
butter milk & fixed
up fine bunsen jet.
Domain fete in the
afternoon took Rose
& Claude. Rose has
got her new teeth.
They are a great
success & give her no
trouble. Asked Roach
for flute evening on
Monday.

10. Fri.
Lent Prof. Skeats of
Wellbourne my old
bicycle to accompany
Speight to Waipara
Cochayne suggests
that I introduce

coloured plates in
trawling report to
bring expenditure up
towards the grant.

11. Sat

Commenced drawing
of Peltorhamphus n3
Frank is away on
Holiday. Received
estimate from W.T.
Coloured plates at
£6. 10. 0 each by
Litho or 3-colour. P.

12 Sun.

Turned out boxes
& packed some tools
etc for removal -
To Hight's in after-
noon. Brauer came
to dinner. & went
had a cycle round

Spent evening with
the Bridges.

13 Mon.

Fitted up the Museum
microscope.

14 Tues.

Brauer Mrs Stogard,
Miss Stevens & Misses
Allan came to hear
the phonograph.

15. Wed.

In "Alcyonarians" of
Thetis Expedition, just
to hand my name
is associated with
Dendronephthya (p 668)
Took Rose Claude &
Nurse Price to the
Pictures - "Houndsditch
tragedy". Museum
Committee, authorised

acceptance of price
from Whitcombe & Tombs
for printing Records
16 Thur.

Prof Spencer (Melbourne)
called to see me -
Roach spent evening
with us. flute duets.

17 Fri
Rented my bicycle to
Prof Skeels (Melbourne)
who went collecting
with Speight Commenced
drawing of
Serioclella brauna

18 Sat.

Spent afternoon and
again. evening, at
the Prices Tennis &
music. wrote Ill re
coloured plates.

19 Sun.

Made colored drawing
of Black Flounder
as a specimen.

Brauer came to tea
he joins "Wholesale
Club" tomorrow as
organising Secretary
Hight came in evening

20 Mon

Called in Dr to
Claude, he fears for
appendicitis. Fitted
fire extinguishers in
Museum.

21. Tues

The Dr. diagnosed the
case of inflammation
of the bowels. Very
feverish & in pain
wrote Mr Waite.

22 Wed.

Saw Ell who says
"go on with colored
plates for the Report."
Ordered from Junk.

1. Delfin. Catal de l'
Peces Chili M. 3

2. Heubel u. a. Suss -
wasser Aquar. M. 1. 50.

Dr. Again Claude is
improving.

23 Thurs.

Dr. Called again his
patient's temperature
is nearly normal.

Made drawing of
Myctophum. Wrote
to Wilfrid - Declaration
"British Manufacture"
re motor cycle.

24 Fri.

Bought "Mending & Repairing". 7- Brauer has severed his very short connection with the Wholesale Club & will leave for Australia next week.

25. Sat.

Discovered that my Pterygotrigla audertoni is Trigla picta, 8th. wrote to Allan. Saw Whitcombe re colored plates. Commenced to dismount workshop.

26 Sun.

Commenced drawings of Chlorophthalmus & Argentina. Finished packing in workshop

Brauer came to dinner
his last Sunday in
Chch. with Rose to
Puees in afternoon
& in evening the
Bridges came round.

27 Mon.

Awakened early yes
terday by earthquake
Brauer repaid the
loan of £200 and
the £50 re wool -
Saw Olivier who will
not leave the house
before Saturday.
I went round and
measured floors etc.
Sent in first lot
of drawings to be
reproduced.

EARTHQUAKE SHOCK.

Early yesterday morning a particularly unpleasant earthquake was experienced in Christchurch. The movement was of a slow, swaying character, quite different to the more familiar jerky shocks, and the motion continued for several seconds, dying away gently and gradually. Many people were aroused from sleep by the shake, and fears were entertained lest the sway should cause chimneys to collapse, but no damage of this nature was reported.

(PRESS ASSOCIATION TELEGRAM.)

PALMERSTON N., February 26.

The severest earthquake shock experienced here for some years was felt at 3.45 o'clock this morning. There were two shocks—the first of five seconds, and the second of eight seconds duration. The shake was travelling from the south-west to the north-east. No damage was done, although the shake considerably alarmed nervous people.

28. Tues.

Sent packing cases
to house & got to
work in evening.

March

1. Wed

Took Rose + Claude
to pictures, letter
from Etheridge re
Puffinus grisea.

2. Thurs

Brauer called to
say good bye, leaving
tomorrow.

3. Fri.

Brauer sold me
35 Ch Ch Meat Co
Shares as below.

£10 shares - part paid.

15. £5 pd. @ £7.12.6

20. £3 . 4.14.0

total -	£20.8.7.6
transfer	12.6
Stamp -	2.6

£209.2.6

Gave Speight- testimonial
Directorship of the
Geological Survey -
Saw first proof of
plates. "Records"
Saw Brauer off at
Station 7.40 train.

4. Sat

Had linoleums &
Carpets removed to
new house & put
some of them down

5. Sun.

Packing & put down
floor coverings.

6 Mon.

Removed by Heywood.
Wrote Calvert offering
rent to end of year
as set-off against
gas connections, Stone

pipe & fixing etc -
Paid 6/- for cleaning.

7. Tues.

Advised Fire Ins^{rs}
Co of removal and
obtained "Cover".

Sent Keys of "Matariki"
to Calvert. At new
home unpacking &
arranging.

8. Wed.

At Museum, Paid
School fees £5. 4-6
Sent a second lot
of drawings to W. F.
for reproduction.

9. Thurs

wrote Wilfrid suggesting
that owing to his
difficulties we aban-
don idea of "Triumph"

& go in for $2\frac{3}{4}$ of
other approved make
Paid £1. 1. 0. Linnæan
Soc. N.S.W. for 1911
Took afternoon off.

10. Fri

Put in spare time
at house, Drew
Syngnathus noronæ.

11. Sat. Schlainwillerianus
Reerecting Bike shed
which I am turning
over to Claude.

12 Sun.

A full day at the
"Settling" business -
Went to Bridges in
the evening.

13. Mon.

Sent in drawings of
Syngnathus (2) &

Pleuronectids (2). +
received proofs of
9 etchings. wrote to
Wilfrid + mentioned
the "Douglas" as the
type of motor which
would suit me -

14 Tues

Ordered timber for
bench, bookcase, new
Music Cabinet ~~etc.~~
+ "Record" shelving.
Sold the motor to
H. Copplestone on the
introduction of Haynes
for £18. payments to
extend over 15 months
£3 being paid down

15. Wed.

wrote Wilfrid + told
him I am motorless -

Developed a very bad
throat, the uvula
being enormously enlarged.

16 Thurs

Letter from Allan,
with list of fishes
he is figuring. As
4 are duplicating
mine I suggested
that I drop *Centriscoops*
Seriöella for *Cythus*
& *Hippocampus* proofs
from the blocks, of
which, I sent him.

Mr. Bridge called &
promised to give me
a hand making the
bench on Saturday.
Cold bad spent part
of day at home.

17. Fri.

Borrowed photo. of
Stranded Sperm Whales
from "Weekly Press" to
make lantern slide.
Made shelving fitted
in dining room for
phonograph records.
refitted gas connections
of hot-air engine
with view of lighting
workshop with gas.

18 Sat

Received scrip for
Meat Co's Shares. paid
final payment for
rent of 91 Rugby St.
Budge spent afternoon
helping me with the
bench.

19 Sun.

Bridge spent morning assisting with bench & all the family came to tea. Visited Cresswells in evening they having, this day returned from Rotorua

20. Mon.

Sent in further lot of plates for reproduction and M.S. of Suter's and Chilton's papers. Commenced work on bookcase -

21. Tues.

The Misses Allan spent evening at No 1. Got new cards printed for Rose.

22 Wed.

Left at 8.40. with
Haynes for Leeston,
met by Cobbleduick &
cycled $5\frac{1}{2}$ miles to
the Lake. Here I
made sketches (w.c.)
of Rh. Retiana from
living specimens &
we then cycled 12
miles to the fishing
huts on the Selwyn.
had lunch & took
launch down to the
lake. Haynes shot 2
Bittern. and speared
some eels. We were
rushed for time &
the motor broke down
we ran it ashore
& rushed for our

bikes, cycled $5\frac{1}{4}$
miles for the train
but missed it &
so cycled 18 miles
home rough roads
& dark when arrived.

23. Thurs.

Sent in some more
drawings to printers
& received specimen
proof of text. Early
Colonists' Committee
met & adjourned on
account of death of
J. R. Hart. Visited
Walsh in afternoon.
Rose & Mae Cresswell
to Theatre.

24. Fri.

Made drawing of
Seriölella punctata

+ *Paraperca gilliesi*
Spent evening at the
Crosswells.

25 Sat.

Sent the 2 drawings
to printers. Worked
at bookcase, cutting
up timber.

26 Sun.

Mr. + Mrs Haynes
called in morning &
I went for ride to
the gardens. They
returned with me to
dinner - we had
tea with the Bridges

27. Mon.

Made drawing of
Coridodax and of
its pharyngeal teeth

28. Tues.

Letter from Allan,
he declines to sup-
press his drawings
duplicated by mine.
(see 16th). Finished
the bookcase.

29. Wed.

Paid Subscription
Linnean Soc. £3.

+ Insurance £3. 7. 6

Letter from Mrs Waite.

She sent £2. for
Claude. Selected

photo. of Centriscops
for reproduction +

Commenced drawing
of Macruronus n-3-

Commenced to make
Music cabinet.

30. ~~Wed.~~ Thurs.

Wrote Wilfred and
asked him to cable
news of motor - "Yes"
or "No -" 3 words. 9/-

Letter from Brauer
he is now on his
way to S. Australia

31. Fri.

Finished music cabinet
Annie Hall wrote to
me enclosing the
cutting. I replied
that I was not the
practical man they
required. attended
meeting of Early
Colonists Committee.

NEW SOUTH WALES.
Public Service Board,

4, O'Connell-street, Sydney.

24th February, 1911.

APPLICATIONS are invited for the position of CHIEF INSPECTOR OF FISHERIES. Applicants should have practical experience of the whole of the phases of fisheries, including the commercial distribution of fish, and be fully capable of assisting, under the Minister, the development of the fishing industries of New South Wales. The person appointed will have the control of a staff of inspectors, and he will need to be qualified to instruct and direct them. Salary £750 per annum, with passage to New South Wales to be paid by the Government, in case the successful applicant is not a resident therein. Age, preferably between 30 and 50. The selection of the Chief Inspector will be determined in New South Wales. Applications should reach the undersigned not later than the 1st May, 1911.

By order of the Board,

R. A. GILFILLAN,

Secretary. 516

Auckland Star
Mch 25th 1911

April.

2 Sun.

Went to tea at the
Prices.

3 Mon.

Signed agreement to
take the house for
3 years from May 1.
Attended Council
meeting of C. D. I
wrote to Brauer at
Balhannah. S. Aust.
Received proofs of
Mollusca article &
sent to Puter. Have
decided to describe
Coelorthyruchus as new.
wrote Annual Rep.
of Museum, 1910.
Coplestone

paid me £1. Con-
-tribution Motor Cycle.

4. Tues.

Went with a party
to the Opera House -
the attraction being
the Harem Skirt.

5. Wed.

Made a table for
Claude's Room.

6. Thurs.

Mae Creswell tele-
phone that her
mother had taken
a bad turn. Made
drawing of *Coeloxyn-
chus australis*.

7 Fri.

Went to Creswells
before 9.0 am &
saw the old lady

She knew me and
bid me good-bye.

8. Sat.

Received corrected
proof from Suler &
wrote him. Exchanged
21 Phonograph records
for 7, more to my
fancy. Spent the
afternoon with Cress-
well. Took drawings
of C. australis. of
C. sp. nov & Macru-
tonus to printers.

9 Sun

Spent the morning
at the Cresswells.
Mr. C. died at 11.0.
Took Rose and Mrs.
Bridge to New Brighton

in the afternoon &
the Bridge family
came to tea. &
Horsley came later -

10. Mon.

wrote Cobbledick re
Eastertime at the
Lake. Received 7c.
for Timber £2. 17. 4.

11. Tues

Letter from Ayson, he
asks for testimonial
for position advertised
in N. S. W. - Ordered
a wreath & attended
funeral. Mrs Cresswell.

12. Wed

Letter from Cobbledick
suggesting Easter Mon.
I replied agreeing -

Took Rose + Claude
to pictures with Mr.
Barnett. Letter fr.
Mrs W. Her Asiatic
holiday. Letter from
Allan to which I
replied. Sent Ayson
a testimonial.

13 Thurs.

Council Meeting C.P.I.
re Dulau + Co. Paid
gas bill - 2 houses -

14 Good Friday

All went to New
Brighton, met Mrs
Bridge family. As
Mr. B was at home
I called for him
at night and we
played cards.

15. Sat

Returned to Museum
in afternoon to
clear off some cor-
respondence etc -
wrote to Mrs W.

16 Sun.

Took down the horse
partition in workshop.
Had tea with the
Prices.

17 Mon.

Left by 8 40. train
for and

Cycled to the fishermen's
huts & found Cobble-
dick awaiting Haynes
and self. Ran out
the motor launch
& set a net in the
lake - The duckweed

& Spirogyra floating
on the river harboured
myriads of flies
which rose in clouds
as the boat passed
They left the weed
a few inches only (in
height) & skimmed
along to the next
patch of vegetation.

The swans kept well
out of the way but
we ran down two
that had been dam-
aged, perhaps the
previous season &
could scarcely fly.
It was easy to tell
when such an one
was met with. At
our approach it

could leave the
rest of the mob &
paddle away at
full speed towards
the middle of the
lake when we then
gave chase & as
it made great speed
the chase was a
long one for our
boat could do only
about 5 miles an
hour. When hauled
aboard the poor bird
was done up. We
saw some young
birds also, as we
heard the mob, the
old birds paddled
ahead of them &
urged them on but-

took flight at a distance of 200-300 yards. The young ones took widely divergent directions so that it was possible only to follow one bird. I marvelled at the speed the little thing maintained the black tibio-metatarsal joints showing alternately with great rapidity. It was only possible to get them by running the bow of the boat straight on to them, for they could of course turn much more quickly than we.

we lost one at
the first attempt
& as it took some
time to put the
launch round, it
had got a long way
before we finally
secured it. The
birds were in down
without a trace of
feather. They are
of grey colour which
is so like the muddy
water that there is
great difficulty in
seeing the birds at
any reasonable dis-
tance. Their legs &
beaks are black.-
They were quite trac-
table in the boat.

Returned to the hut
+ remained overnight
18. Tues.

Rose at 5.30 + after
breakfast again took
out the launch. The
net was empty the
rough water having
twisted it up +
the eels had taken
what fish may have
been caught. This
day we ran down
some more young
swans + got two
ducks (a supercilious)
that were unable
to fly tho' otherwise
well enough. We
got some Mackerel
Gulls - their gullets

Crowded with flies.
which they had
caught on the weeds
& marshy lands. I
waded in for those
we shot. We made
across to the culvert
& after yarning with
2 old Greek fishermen
I descended the shaft.
it seems almost
choked with *zostera*?
and dead eels, both
of which combined
to raise a fearful
stench, attracting
hosts of blow flies.
Shags mounted guard
on the piles of the
culvert. We then
left the spit

and leaving the
launch waded out
to many vacated nests
of Swans. They are
~~up~~ built of the
weed. (*Zostera*?) to
a height of 18 inches.
Other birds we saw
were, Bittern - *Larus*
dominicanus, Godwit
Dotterel. Paradise Duck
Spoonbill, & the usual
British Birds. Cycled
to Springston & got
the 5.4 train - I
found a note at
home to the effect
that they had gone
to the theatre with
the Bridges, asking
me to follow. I

got down in time
a seat being kept
for me. "Seven days"
a silly comedy.

19. Wed.

Finished drawing of
Cheilodact. macropterus
+ wrote description.

Reading proofs of
N. Nwui - Crustacea.

20 Thurs.

Sent in application
(see March 31st). &
published papers -

Made drawing of
Seriocella brama, 30/-

21. Fri.

As an article entitled
"A plague of Rats" (in
Chch.) appeared in
the Press I rewrote

my article (see Aug
8. 1910) & sent to
the editor - wrote
description of Seriocella
brana - Hemerocoetes
& discursive matter
now only remains to
complete the paper.
Hamilton called &
brought 2 Regalecus
Algonichthys and
Agonostoma for me
to examine for him.
Corrected further proofs
of Crustacea.

22 Sat

Article on Rats printed
in the "Press" Developed
the 7 negatives, taken
on the lake. all
good.

SOME FACTS ABOUT RATS.

(BY EDGAR R. WAITE, F.L.S., CURATOR,
CANTERBURY MUSEUM.)

Judging by the number of enquiries I have received lately relative to rats and their connection with bubonic plague, it would seem that there is good ground for the statement which appears in to-day's issue of "The Press" under the heading "Plague of Rats."

It is said that there are myriads of rats in a certain area in Christchurch, but there is not much fear of the plague breaking out here. There is, however, always the possibility, and it is to be hoped that this statement will not minimise the precautions which should be taken, and which should be directed against the rat itself. Perhaps I can assist the campaign by making public information which I have supplied to private enquirers who have shown themselves to be almost ignorant of the subject.

It is not generally known that there are two different kinds of rats to be met with in the neighbourhood of habitations, and not being identified as distinct, their very different habits of life are not appreciated. Popular knowledge of the rat is derived from the brown, or sewer, rat, and though specimens have not been submitted to me, it is probable that this is the species in present question. As rats go, this is a large animal, often measuring 17in in length, of which 7½in is occupied by its tail; it has small ears, beady eyes, and is of brown colour above and greyish beneath. It is also sometimes called the Norway rat, from a belief that it was introduced from

Scandinavia; but, as a fact, it was unknown in Norway at the time it made its first appearance in Britain. It was originally a southern or eastern species, and is supposed to be a native of the East Indies. It was first noticed in England and France about the middle of the eighteenth century, but haunting ships in great numbers, it has now been introduced into all parts of the world.

The brown rat is a great scavenger, and, in towns particularly, infests the premises of butchers, fishmongers, and others where food is plentiful. It flourishes in the sewers, emerging at the inlets or through broken drain pipes, and it multiplies so rapidly, that if not checked, it speedily becomes a veritable plague.

The black rat is a smaller animal, measuring 14 inches in length, with a relatively longer tail, it being, in fact, more than half the total length. The ears are larger than in the brown rat, and the colour is black, sometimes wholly so, in other examples the belly is lighter, occasionally pure white. This animal is a much cleaner feeder than the brown rat, being more partial to fruit and grain; and it has been almost exterminated in many parts of Britain by the larger and more powerful species, so that it is sometimes spoken of as the old English black rat. It is, however, very common in many other parts of the world, particularly in the neighbourhood of seaport towns. It is extremely plentiful in such places, both in New Zealand and Australia, and I may say that all the rats which I have seen caught on the premises of the Canterbury Museum have proved to be black rats. Wherever both kinds occur in the same building, the black rat occupies the upper portions, while the ground floor, cellars and sewers chiefly harbour the brown rat.

There is a rat in the neighbourhood of Sydney which, owing to its tree-loving habits, was accorded the scientific name of *mus arboricola*, and it was not until I sent specimens to England for

direct comparison that it was proved to be the black rat. The fact that this animal had received such a distinctive name indicates that its proclivity for climbing trees was sufficiently well-known. I had an experience with this rat which may be of some interest in connection with its habits. Shortly after taking possession of a new house at Mosman's Bay, Sydney, from which the builders had scarcely departed, our household was made well aware that a colony of rats had established themselves overhead. As they were evidently present in considerable numbers, a six-way rat trap was obtained, set and baited in the orthodox way with bacon and cheese. Seven weeks passed by, and none of the traps was sprung, although the nightly gambols in no way diminished. At the end of that period a single rat was caught, and on removing it from the trap it was found to be an example of *mus arboricola*. Having heard that this rat fed chiefly, if not exclusively, upon fruit, the traps were rebaited with bananas and peaches, and next morning there were three rats in the trap, and again on the following day, three more. Afterwards they were caught in ones and twos, until they were either exterminated or scared from the dwelling.

On mentioning the circumstance to others, I learned that it was quite usual for bush rats, as they were commonly called, to take possession of new houses, and one man, a builder, who had many opportunities of seeing these animals, told me that while the sewer rat is usually found on or near the ground the bush rat invariably ascends into the upper regions. The reason that new houses are more frequently occupied by bush rats than older tenanted ones may be partly accounted for by the cat, which, commonly introduced with human inhabitants, speedily clears them away.

Of the rats obtained a number were kept alive in a suitable cage, and became very tame. They were fed upon fruit, such as grapes, bananas, peaches and apples, and would also eat bread and drink milk, but flesh foods were left untouched. I also sent some of the rats to the Zoological Gardens in London, and all arrived well.

A Sydney gentleman informed me that at his residence bush rats have, for several years, occupied the roof and that they emerge at dusk, descend by means of the vines, and feed upon the seeds of various plants in the garden. They also ascend the highest native fig trees, and feed upon the fruit. Another one was similarly troubled with these rats in his house, and only obtained some immunity on cutting down a large branch which the rats used to traverse in order to reach the roof. A friend described how these rats infest the peach, apple and other orchard trees, and destroy large quantities of fruit. He has also repeatedly witnessed them seize and devour the cicadas, commonly known as "singing locusts," and described the rats as frisking about the branches with great agility.

One other article of diet is still to be mentioned. Many of the Sydney suburban gardens are overrun with the

common English garden snail, the same species which we know, though not so abundant, in Christchurch. During the cooler weather, when the snails congregate in thousands, and hibernate beneath inverted flower pots, old boxes and similar retreats, the rats make speedy war upon them by biting off the apex of the shell and extracting the succulent mollusc. In the original notice of this rat in Sydney, the late Mr Macleay described it as inhabiting the lofty gum trees at Elizabeth Bay, where it builds a nest among the branches, with leaves and twigs, like that of a bird. The secretary of the Linnean Society of New South Wales described to me how he found a nest in the gardens. It was in a tree, and taking it to be the work of a bird, he shook a supporting branch, whereupon a rat ran out. The curator of the Macleay Museum often found the nests of this rat high up in bamboos. The nests are usually larger than a football, and are not only used as nurseries, but also as permanent habitations. On one occasion he ousted nine full-grown rats from one nest, and several times four and five have been discovered occupying a common retreat. My informant also told me that the rats gnaw holes in the bamboo stems, and take up their abode in the chambers between the knots. He thinks that these shelters are formed during the wet season in order to escape the rains, and although he examined a considerable number, he never found the semblance of a nest within the cavity. It is thought by some that by this means the rat seeks to escape from the native cats and other predaceous animals. The hole is cut immediately below a knot, so that the chamber is entered from its upper part. These holes were never observed near the ground, they were generally thirty or more feet above it, and were frequently found when a bamboo was cut down.

A correspondent of one of the Auckland papers recently described how he had found a rat's nest in a tree, and cited the occurrence as remarkable. There is little doubt that he had encountered the domicile of a black rat, which, as I have shown, commonly nests in such situations, at least in Sydney.

Though I have mentioned that the black rat is a cleaner animal in respect to its food and surroundings than the brown rat, it does not follow that it is less dangerous to man in respect to plague. It also has fleas, which are quite as capable of transmitting disease as its larger relative, and as both rats are quite common in our city and suburbs, no quarter should be given to either species.

23. Sun.

To Museum in the afternoon. The Prices came to tea.

24. Mon.

Received balance of proofs on Crustacea & sent down a first part of the fishes, MS.

25. Tues

Received a letter from Perth, asking for my papers on fishes of W. Aust. Printed at the head was a picture of "Siamese Twin" Schnapper the original said to be in the Auckland Mus. I wrote to Cheeseman on the subject.

Sent in a second
lot of fish M.S. to
printers. wrote on
Dogfishes for the
concluding article of
the report.

26 Wed

Exchanged some 1"
bends etc. for some
1/4" fittings & piping -
for the workshop.
All went to the
"pictures" at night.

27 Thurs

Asked Lillie to tea
on Sunday. Frank
made drawing of
2 *Hemerocoetes* one
having a very large
eye. (*H. macrops*?)
(new).

Now running over
the fish MS, the
first part having
been sent to the
printers.

28. Fri.

Took Rose + Claude
to Opera house to
hear Alex. Price on
the concertina. We
had some of his
records, his playing
is marvellous! (see
over) Promised to
give a lecture to
the Scouts. I have
just examined about
30 of them for
badges.

OPERA HOUSE.

It probably came as a great surprise to the audience in the Opera House last evening to hear Wagner interpreted on a concertina. There was a hush of surprise when Mr Alexandra Prince, who is billed as the world's greatest concertina soloist, commenced his recital with the strains of the magnificent "Pilgrim's Chorus" from Tannhauser, which has been made by Dr. Bradshaw's organ recitals, one of the most popular of classical compositions. The surprise was speedily changed to wondering delight, as Mr Prince proceeded with his interpretation. The splendid song went on, in fine organ tone, and then, to the amazement of the audience, Mr Prince began to work in the fanciful embellishments within which Wagner set this musical masterpiece. It seemed an impossible thing, and the audience sat enchanted and almost spellbound. The conclusion of the chorus let loose an ovation, and Mr Prince responded with an admirable presentation of "The Tournament March and Chorus," from the same grand opera. There was a real artistry in his playing, and this was supported by technique of a most remarkable character. With these two compositions Mr Prince disposed of the classical, and thereafter he entertained his hearers with realistic imitation of the chimes of the Bow Bells and the skirling of the bag-pipes, and incidentally lively interpretations of popular and well-known songs. Mr Prince is an artist to his finger tips, and he gives one of the most attractive musical turns ever presented here in vaudeville. The usual vaudeville programme was a most entertaining one. The programme will be repeated this evening.

29 Sat

An eclipse of the sun in the early morning. We got a good sight, all the flecks of sunlight usually round were eclipsed.

My article on the rat had attracted the attention of Nairn (see over).

30. Sun.

Cut pipes & extended gas service to the workshop. Lillie & the Bridges came to tea

THE BLACK RAT.

LOCAL EXPERIENCES.

In the course of conversation with a "Press" reporter, Mr Robert Nairn, of Addington, related some interesting local experiences connected with the ways of the black rat, a subject dealt with by Mr Edgar K. Waite, F.L.S., in an article which appeared in "The Press" last Saturday.

"Some three years ago," said Mr Nairn, "a black rat escaped from a case of plants which arrived from Sydney; for a time no evidence could be seen of the rodent, but one day one of the greenhouse hands was struck by what appeared to be a bird's nest, built in the climbing growths of the Tacsonia, or Scarlet Passion Flower, close up to the glass. On inspection it proved to be a rat's nest, with a black rat curled up inside asleep. It however escaped capture for a few days, but eventually was killed. Previous to the discovery of the nest much damage had been done to many plants of the Asparagus Plumosa, the young shoots being cut off, and this without leaving trace of the culprit. With the death of the black rat no further loss ensued.

"Some six months ago another black rat escaped from another case of plants which also arrived from Sydney. The stove-house proved to be the most attractive spot for it. Here it soon did much damage to the plants, particularly the Asparagus; one plant, viz., the Cycas Revoluta, which is noted for its large base, similar to a pineapple, was attacked vigorously, and almost consumed. Traps baited with cheese were set, but without effect, and for a time every means adopted to catch the rat failed. Eventually a spring trap set cleverly in his track beat him. Until reading Mr Waite's article this rat was credited with great cunning in avoiding the baits set for him. Now it appears the reason for failure was that the wrong kind of bait was used. If the trap had been baited with fruit it would have attracted him early.

May.
1. Mon.

Received & returned
first proofs of the
trawling fishes. Went
to see Howell of the
Technical College High
School with idea of
placing Claude there.
Spent evening with
Bridge at the work-
shops there. Find
that I am down
for a lecture on
Oct. 31st. at the St
Albans Wesley Guild.

2. Tues

Claude broke up today
& I sent notice of his
discontinuance at

Christ's College. In
the evening Rose
again went to hear
Alex. Prince taking
Claude Thiss Green.
I put in a full
night on "Outcome
of Hawling Expedition"
Removed mounted birds
to acclimatisation gardens
& photographed them
in natural surroundings
All produced splendid
negatives.

Wed

Took the negatives to
Bristed who will use
them in the "Weekly
Press" in connection
with the shooting season
which opened May 1st

Went to the opening
meeting of C. D. S.
Adams & Seager in-
spected ceilings at
Museum on which
I had reported
adversely. Finished
writing on "Outcome"
of Drawing Report.

4 Thur
Letter from Brauer
wrote to Allan re
his Endeavour Report.

5 Fri
Made drawing of
Monacanthus scaber.
Sent pagged proofs to
Suter & Chilton.
Coppelstone sent up
the motor bike. He
has got the wiring.

wrong. The Creswells & Bridges came in the evening.

6. Sat.

Sent a load of books from Museum to the house. Paid rent for April, the landlord having been away.

7. Sun

Took Claude to Haynes at Waimoni in the morning. Went to tea at the Bridges & while there sent off 8 replies to Advt. Motor cycles for sale. I expect a cable from Wilfrid any day now.

8. Mon.

Unpacked & shelved
some of the books,
had 3 callers re
reply to Advt. none
satisfactory

9. Tues

Received cable from
Wilfrid "No" - he
has not bought a
motor. More callers
Saw a "Triumph"
3½ h.p. £37. and a
'Bat' 2½ £27. The
latter is my fancy
Owner call tomorrow -
Sent in the final
drawing for the
trawling Report -

Monacanthus

Hemerocoetes. (2)

My photographs taken
May 2. appear in
"Weekly Press"

10. Wed.

wrote Coppelstone re
the Ariel and his
non-payments. In
the evening the owner
(Orchard) of the $2\frac{1}{2}$
Bat brought the
machine and I
arranged to take
it over tomorrow -
As the size of our
whale is still in
dispute I wrote the
following: —

THE MOJI WHALE.

TO THE EDITOR OF "THE PRESS."

Sir,—In your issue of Saturday last "Sheffielder" asks for some particulars "of a whale 200 feet long, said to have been captured in the Japan Sea about twelve months ago and carried to Moji, and sold to a New York Museum." In connection with the printed accounts of this whale and its bearing on the claims made in respect to the Okarito Whale, a correspondent has kindly sent me a letter covering one received in reply to a communication addressed to the Curator of Mammalogy in the American Museum of Natural History, New York. The enclosure reads as follows:—

"The whale skeleton referred to which came to the Museum by the steamship "Aragonia" from Moji, Japan, was a Blue Whale, or Sulphur-bottom (*Balænoptera sulfureus*) from a specimen 80 feet in length. "You are right in saying that the whale taken in New Zealand at Okarito is the largest specimen of which accurate measurements have ever been taken. I made careful enquiry about this New Zealand whale at the time it was killed, and can assure you that none has been recorded of a greater length. The clipping saying the specimen I brought from Japan is 200 feet in length is incorrect, and I do not believe that any whale ever reached anywhere near that measurement. Some very remarkable newspaper stories were published about this shipment of whales. (Signed) Roy C. Andrews,"

Trusting that "Sheffielder" may find this information satisfactory,—Yours, etc,

EDGAR R. WAITE.

Canterbury Museum, May 8th, 1911.

Received an official
form of application
to fill in for the
Fish. Inspectorship of
A.L.W.

11 Thurs

Copplestone wrote (see
(10th)) surrendering
the motor - Received
+ paid for the 'Bat'
£27. Letter from
Brauer to which I
replied. Wrote Wilfrid
ack. S. - the Cable -
Letter from N. Beale.
Lectured to Boy
Scouts on "Animals
& their clothing"
not on birds (see
cutting - over).

The Canterbury Museum has just received from his Lordship the Bishop of Melanesia several interesting relics of Island ghost and witch lore. They are in the shape of "ghost stones" and "talamatai," which are nicely described in his Lordship's accompanying letter: -- "In many parts of Melanesia there is or was a widespread belief that through the action of spirits or ghosts it is possible to control or direct the forces of Nature, to make rain or sunshine, wind or calm, to cause sickness or remove it, to bring good luck and prosperity or the reverse. In many localities it is implicitly believed that each ghost or spirit has a special stone, or stones, of his own in the neighbourhood which he frequents, and that if offerings are placed in the vicinity of the stone and a proper prayer recited, the ghost may be induced to carry out the wishes of the suppliant. . . . The stones are generally selected for some peculiarity of shape, and are usually kept in retired places in the forest. Talamatai are magic charms common in the Banks Islands. A bit of bone, a splinter of wood, a fragment of coral, etc., is bound up with the leaves which have "mana" or magic for the purpose, and which have been sung or prayed over by a witch doctor. By this means the power of the ghost is bound into the charm, and the talamatai is secretly planted in the path along which the person at whom the charm is aimed must pass, so that the virtue of it may spring out and strike him with disease. It is believed that if the string is rubbed upon or bound round a dead man's skull, the efficacy of the charm will be greater." All the exhibits are from Mota, Banks Islands, South Pacific.

Mr Edgar R. Waite, curator of the Christchurch Museum, has consented to give a talk to all the Christchurch Scouts, on "Birds and Their Clothing." The lecture will be given at the Y.M.C.A. rooms this evening, and will be illustrated by lantern slides. During the evening the prizes won by the various troops at the recent competitions will be presented. Dr. Fenwick will be present to form a mounted ambulance corps from the senior boys, and a large attendance of scouts is anticipated. This will be the first of a series of winter entertainments, which the Christchurch executive hopes to arrange for the scouts.

12 Fri.

Sent final part of descriptive matter of travelling report to printers. Took the "Bat" home, but failed to get a fire. Ed. Price came in the evening & took away the Carburretta

13 Sat

Bought new kitchen clock 32/6. Haynes gave me his long-haired Cocker Spaniel "Tui": a beautiful dog. ~~With~~ all went to pictures at night with the Bridges - worked at the "Bat", repairing the tank which was dented -

14 Sun.

Reenamelled the tank in part & generally overhauled exterior parts of the "Bat". The Bridges came to cards "500"

15 Mon.

Making drawing of

Monacanthus convexirostris
positively the last!
Spent evening at the
Bridges.

16. Tues

Letter from W.B. Simpson
via Ambleside, he is
married at last -
Received books ordered
from Funk.

1 Die Pflanzen u
Fische Süßwasser
Aquariums and

2 Cat. Pecces de Chili
by Drephin who
spells my name
"Edgard" and
Fowlers - "Eury".

Sold 4 Volt 25. ampere-
accumulator to
Dout for 15/-

Handed to printers
"Outcome of the
Expedition" being the
final copy. Ordered
new foot rests to
be made for the "Bat."
Best **A**fter **T**ests.
is a good name for
a Naturalist.

Price came & we
found that the air
valve did not close
when the lever was
"off" consequently the
mixture was too
poor. Altered this.

17. Wed.

Finished drawing of
M. convexirostris &
sent to be engraved.
Received more proofs.

Ethel Price & her
brother came, we
worked at the motor
and got it to go
but could not shut
down the throttle -
Had new foot-rests
made.

18 Thurs.

Letter from Paterson,
he has met Brauer
Received reprints of
fishes trawling Exp-
pt 2. Paid Junk's
etc for books 5/3

19 Fri.

Received proofs of
plates Xenerocoetes
& Monacanthus scaber.

Soldered slight leak
in motor tank but

grinding failed to
remedy leaky tap.
Rode motor to the
Museum but not
yet able to slow
down.

20. Sat.

Where do the House
Flies go in winter?
We have had three
days of frost and
this morning I
made porridge. I
found the packet
of Oats black with
torpid flies. They
had crept beneath
the flakes doubtless
for warmth. Cut
doorway between

the workshop & shed.
Repaired Venetian
blinds

21. Sun.

Fitted door into the
cutting. The Bridges
came to tea.

22. Mon.

Received galley of
final portion of the
trawling report. As
Speight is ill I
acted as secretary for
Council meeting of
C. P. S. - Bought new
(Dunlop rubber) belt
for the "Bat." £1.

23. Tues.

Sent in proofs of
the last plates of

trawling report. Letter
from Wilfrid re the
Motor business &
Marie. Yesterday
Claude commenced
School at Technical
College. paid book
etc etc. £1-14-5.
wheeled 'Bat' home
as Price is coming
again tomorrow.

24 Wed.

Received first paid
proofs of 'Pisces'.

Price spent evening
at the Motor. found
the carbon pencil in
the Magneto was
missing.

25 Thurs.

wrote Paterson. reply

Letter from Horning-
Cooper renews his
lease and asks if
I desire to sell the
house "Headingley".

26. Fri.

Ordered book-plates
to be reprinted with
"Pterygotrifa picta".
Took "Bat" to the
engineer, it was
found that a "key"
had come loose in
the magneto & a
broken carbon re-
sulted. Bowden wires
to carburetter were
"stranded" & stopped
free movement. I
paid 7/6 for repairs

27. Sat.

Had a run out on the "Bat" all went to pictures at night.

28. Sun.

Gardening in morning put up fixtures in workshop.

29. Mon.

Letter from Mr W.
written from Jerusalem
Bought leather to
complete satchels for
the Bat 4/-

30 Tues

Wrote notice of death
of Sir George Eliot
for trawling report.
Newspaper notice of
Chairman's Annual
Report (over).

Museum.—Unfortunately, owing to an oversight when the control of the museum was handed over to the Board of Governors, the fee simple of the land on which the building stood was not vested in Canterbury College, and the anomaly existed of a substantial building containing a very large amount of valuable exhibits, standing on land belonging to another body. The Domains Board, in which the site was vested, was strongly opposed to the transfer of the fee simple from itself to Canterbury College, and in view of the anomaly mentioned above, and the fact that additional land would soon be required for the extension of the main building, it would be necessary that, when legislation was sought from Parliament in connection with College matters, a clause should be introduced to provide for the present site and that of the land required for extension being vested in the Board of Governors.

The Museum and the Public Library are two other institutions that were starved for want of sufficient funds, and though the residents in the town pointed out with pride these places to those who came to visit Christchurch, yet the representatives of these residents, reflecting the apathy of their constituents, had refused to supplement the funds of these institutions in any way whatsoever.

MUSEUM.

The curator, Mr Edgar R. Waite, F.L.S., in the course of his report, stated:—Following a suggestion that I made that the rectangular piece of ground at the south-east corner of the Museum building be included within the Museum fence, enquiries revealed the fact that the ground upon which the Museum stands is not vested in the Board. The College Board is averse to erecting further structures upon land which it does not control. As a result we are still much inconvenienced by the want of a small laboratory, for mineralogical and petrological work. As the Museum still possesses a limited number of duplicate moa bones, a circular was issued offering certain remains for sale. Some sets were thus disposed of, while exchanges were negotiated for others. The taxidermist mounted, cast, or renovated over 500 specimens of various kinds during the year. In addition to his work on the mineral and geological collection, Mr Speight devoted considerable attention to the exhibited collection of moa bones, and the work will be continued.

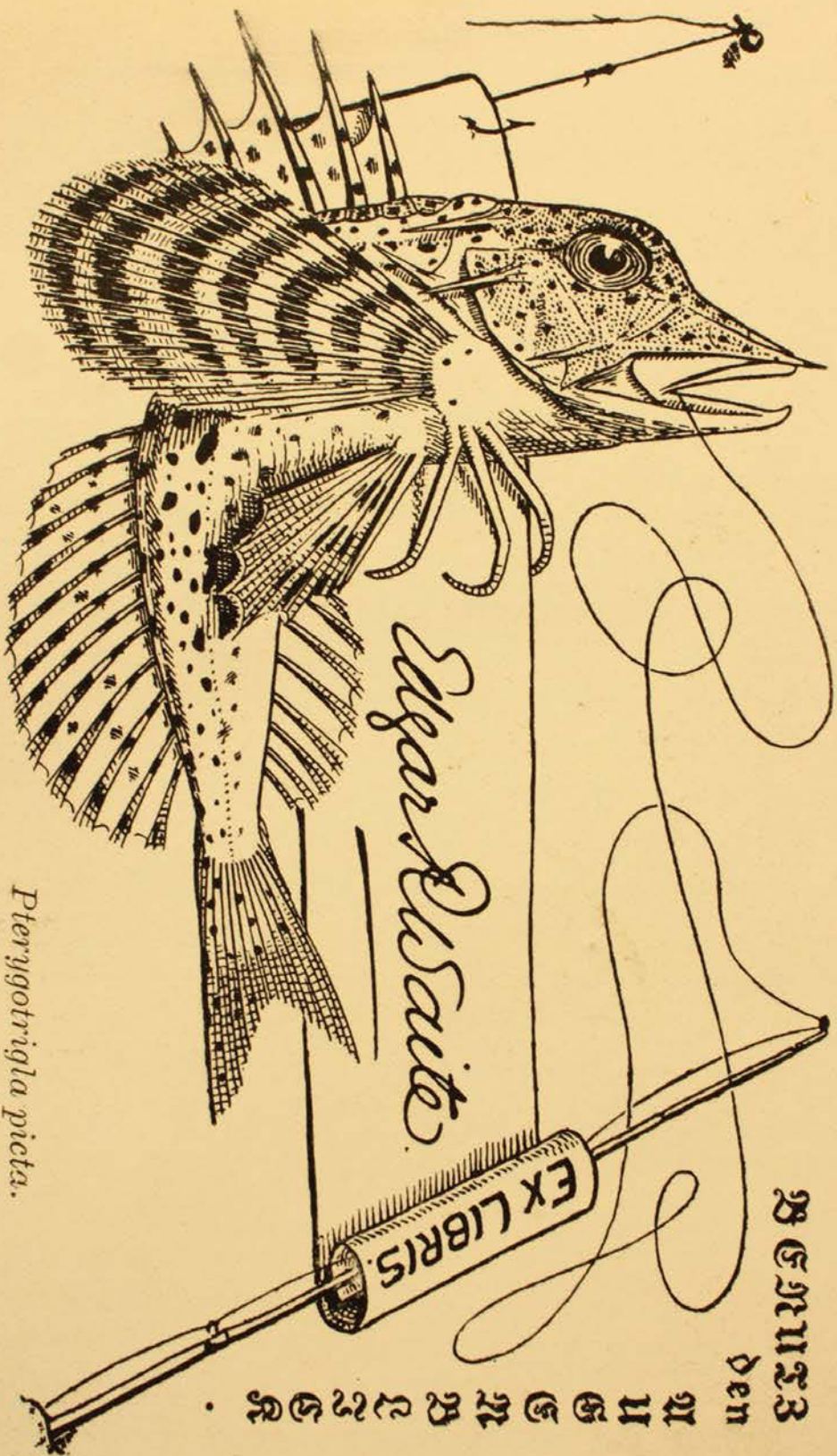
31. Wed.

Received proofs of the
final sheets of the
trawling report in
page form.

June

1. Thurs

Received book-plates.
as amended. Gave
Press reporter interview
re Kapiti Island as
a bird sanctuary
(see over.).



Pterygotrigla picta.

Museum

den

EX LIBRIS

Kapiti

2. Fri.

Obtained new bar
for saddle the old
one being cracked. $\frac{4}{-}$
Creswells came in
the evening.

3. Sat.

Fitted arrangement to
hold tool bag below
the usual carrier -
wrote to nephew Rupert.

4 Sun.

Spent evening at the
Bridges -

5 Mon.

Holiday King's birthday -
Spent morning at the
Museum. Wrote to
Hornings. Will consider
sale of "Headingley"
later -

6. Tues.

Letter from Brauer
& Wilfrid. At Allans
to meet Asmus.

Passed proof of the
first 16. plates on
the machine.

7. Wed.

Meeting. C. P. J.

Lillie on Whales. The
Chairman asked me
to give the first
popular lecture of
the season. I gave
him the title "Whales".

8. Thurs.

Wrote to Paterson &
Brauer. Machine
proofs of plates sub-
mitted, they are
beautifully done.

but lose character.
I'm much distressed
the machinist by
saying I must have
blacker impressions.

9. Fri.

Took return ticket
to Sydney for Rose
£12.15.0.

10. Sat.

Spent afternoon at
Crosswells doing a
little mechanical
work for him.

11. Sun.

Rain all day, put
up fixtures in the
workshop etc. Col-
lected negatives +
prints for lecture
on "Whales."

12. Mon.

wrote to Rev. Salway
for loan of negatives
on Chatham Is. Whales
& to Librarian, Wellington
for references to Whales
in Poole's Index.

13. Tues.

Letter from Murray.
my article on fishes
of Nimrod Expedition.
he is sending reprints.
Letter from Mrs W.
she having returned
from her Eastern tour.
withdrew £20. obtained
B/D. for £10 on Sydney.

14. Wed.

Received reprints of
"Antarctic fishes."
Heavy hail storms.

15. Thurs.

Saw Rose safely on
Board the "Warrunoo"
en route for N.S.W.
Claude and self
will dine at the
Allans also (midday)
on Sundays.

16. Fri.

Diploma day at the
College. At Library
looking up serials
on Whales.

17. Sat.

Bridge came in the
afternoon & we all
went for a ride. I
took him to the
gardens, and he saw
trout stripping for
the first time.

18 Sun.

Up at 5.15. a fine
frosty morning Claude
& I left the house
at 6.0 cycled to
the foot of the hills.
pushed or rode to
Dyers' Pass - I got
but one shot with
the 12. bore, but the
boy has not suc-
ceeding in getting
a rabbit yet. We
took Tui. he snuffed
around the dead
rabbit but is no
good as a sporting
dog. being afraid
of the gun. Went
to Bridges after tea.

19 Mon.

Received dividend
Chch Meat Co -
£5. 8. 0. for half
year ended 30. April.
Wrote W. B. Simpson
in reply. Wrote to Herr

20 Tues.

Wrote to Rose, asked
Whitcombe and Tombs
to keep Heterosomata
linotype standing as
I may use it further.
Took Claude to Pictures.

21 Wed.

Received further reprints
of Antarctic Fishes -
Wrote to Rose. A fine
Tunny was sent to
the Museum Colored
our cast from it.

22 Thurs.

Coronation Day -
Claude was one of
the procession as a
Naval Cadet. Very
wet day. I joined
the Bridges and the
Cresswells & we went
to the latter's in the
evening.

23 Fri

My lecture on
"Whales" is the first
of the series & is
down for July 13.
The trawling report
is to be dated for
tomorrow. Went to
town in evening
with Bridges & Cresswells
to see illuminations
[150]

24. Sat.

At Crosswells in
the evening - Music.
I obtained parts to
complete left brake
on the Bat. 3/6.

25. Sun.

Amuss returned
with us from High-
field House - we
went to tea to the
Bridges and stayed
the evening.

26. Mon.

"Records" dated 24th
delivered to-day -
After dinner at the
Allan's we stayed to
"an evening." Cards
& music.

27. Tues.
Sent off "Records"
locally. Miss Price
asked us to postpone
the "evening" so we
spent it with Hight.

28. Wed
Sent off more "Records"
the following leader
& note appears in the
"Press".

We have received from the Curator No. 3 of Volume I. of "Records of the Canterbury Museum." The volume contains scientific results of the New Zealand Government trawling expedition of 1907. Mr E. R. Waite, the Curator, deals with pisces, and the outcome of the expedition, Mr Henry Suter with mollusca, and Dr. Chilton with crustacea. We have referred to part of the contents in our leading columns. The volume is a very valuable compilation, and shows that the Museum is a live institution. The scientific notes are very full, and their value is greatly enhanced by a number of excellent plates. Some of the illustrations represent fishes of very weird appearance. The book is admirably printed by Whitcombe and Tombs, Ltd., and reflects great credit on all concerned in its production.

The Curator of the Museum has placed on view the third of the groups illustrating the natural history of the New Zealand birds. This represents the morepork or smaller owl, and is the work of Mr E. J. Haynes, the Museum taxidermist. It is produced on somewhat simpler lines than the previous cases depicting the owls seated on an old log on a shingle bed. One of the birds is represented as having just caught a yellow-breasted tit. It is also intended to represent a kea attacking a sheep, and if any farmer who was unfortunate enough to have lost a lamb during the recent stormy weather felt disposed to present the carcase to the Museum, and would communicate with the Curator, he would deem it a favour.

[1524]

... ..

The Press.

WEDNESDAY, JUNE 28, 1911.

A NEGLECTED FOOD.

It is curious that neither in Great Britain nor the colonies, where there is chronic grumbling about the cost of living, do people fully realise what an immense supply of cheap food there is in the waters at their doors. It is true that in England the consumption of fish is so enormous that some kinds are said to be in danger of depletion, but there is among some classes a prejudice against fish as inferior food, fit only for the poorest. Again, even among fish-eaters there is a prejudice against certain kinds of fish which, though really excellent eating, are regarded as too coarse for the table. In an admirable report just published on the results of the Government trawling expedition of 1907, Mr E. R. Waite, curator of the Canterbury Museum, draws attention to a number of kinds of edible fishes that are found in abundance in our waters, but for which there is little or no demand. For red cod, tons of which were obtained by the *Nora Niven*, there is but a small market; but Mr Waite knows no reason why it should not be eaten freely. Elephant fish was served in the "saloon" of the trawler, and was voted delicate in flavour and texture, but the crew refused to touch it, and threw it over-

board. Seeing that there was plenty of fish of other kinds available, the men could not be blamed, but Mr Waite considers their antipathy to elephant fish was due solely to sentimental prejudice. The trawlings off the Canterbury coast indicated that there was an abundance of this species. Mr Waite says few New Zealanders will eat skate, but in the Old Country it is consumed in large quantities, and the New Zealand skate has a food value possibly equal to that of the best of the genus. There is, he remarks, considerable prejudice against eels, doubtless largely due to the Biblical injunction against the eating of fish devoid of fins and scales, but he points out that, contrary to popular belief, the fresh-water eel does actually possess scales, and therefore does not come under this prohibition. Fresh-water eels abound in our rivers and lagoons, and the conger-eel, which Mr Waite tells us is good eating, is not uncommon in the waters about our coasts. The prejudice against the dog-fish tribe is more general, and more intelligible. Dog-fish are small sharks, and great odium attaches to the shark. But it has been proved that dog-fish are palatable food; they are freely eaten by poor people at Home, and there is reason to believe that they are canned in America, and sold abroad under other names. The dog-fish has a bad reputation, because it is carnivorous, but nearly all the kinds of fish we prize

for the table, feed in the same way; the ocean is a vast battlefield, where one fish preys upon another. A very interesting section of the report deals with the flatfish in New Zealand waters. It will surprise most people to know that there are thirteen species of flatfish here. There is a good deal of confusion in the naming of these kinds; for instance flounder, sand flounder, "three corner," and "tin-plate," are names applied to *Rhombosolea plebeia*, and the term brill has been used to designate two very different kinds. Mr Waite suggests that steps should be taken to secure uniformity of nomenclature. He tells us, also, that a great deal has yet to be learned about the distribution and habits of these valuable fishes. Indeed, it is clear from Mr Waite's report that the work that has been done in investigating our fisheries has touched only the fringe of the subject. Until we know a good deal more about the supplies in our waters, and set about catching in a systematic manner, fish will not be the cheap food it should be. Doubtless, also, the methods of distribution require to be placed on a better basis.

Went to Concert of
Orpheus Soc. with the
Allans.

29 Thurs

Sent off reprints of
Antarctic fishes.

Additions to fishes of
N. Z. pts 1 + 2.

Nova Niveu fishes pt. 2.

Letter from Rose - also
from Stiles - Secretary
of Commission on
Zoological Nomenclature
appointing me one of
six - a committee to
discuss nomenclature
of fishes. Wrote to
Stiles & Evermann -
Gave Baker the first
material for lantern

slides for the whale
lecture. A party
went to town at night
to see the postponed
Fire Brigade display.
wrote to Wilfrid.

30. Fri.

Photo'd Tunny & Dolphin
for the lecture. The
workmen have com-
menced match-lining
the ceiling of my
workroom & the mammal
gallery.

July.

1. Sat.

Took photo's of the
Cresswells + Bridges
at the former's house.
Spent evening there.
Received bound copies
of the Drawing Report
complete, one intended
for the Minister.

2. Sun.

Motorred to Wainoni
to see Haynes who is
 Sick thence to New
Brighton. Had tea
at Mrs Allen's and
spent evening there.

3. Mon.

Developed photo's taken
on Saturday. Sent

off reprints & wrote
to Jordan.

4. Tues.

Letter from Rose, sent
her M.O for £5.
being £25 to date.
Sent bound copy of
trawling report to
the Minister & wrote
to him a covering
letter.

5. Wed.

Haynes is said to be
worse & ordered to bed.
Later I visited him
& told him to send
a certificate.

6. Thurs

Triggs brought Dr
Harris to see me &
I took him to the

hatchery where he
saw "stripping" for
the first time. He
is an enthusiastic fisher
man & sportsman &
gave me 4 tickets
for "Elijah". I took Mr
Bridge, Mae Cresswell
& her sweetheart & we
had a magnificent
treat by the Sheffield
Choir. Wrote to Rose.

7. Fri

Beken delivered some
of my lantern slides -
worked at the lecture.
In her letter Rose
mentions having seen
Etheridge who said
that Stirling was on
the eve of returning.

from the Curatorship
of the S. A. Museum
& he would let me
know when anything
definite transpired -

8 Sat.

Printed photos of the
Cresswells & delivered
them in afternoon. Had
a stroll round town
at night for provisions.

9 Sun.

Had tea at Mr. Johnson's
friends of the Bridges
who were also there.

10 Mon.

Gave Behen six more
prints for lantern slides.
Called to see Haynes.

11. Tues.

Beken delivered balance
of lantern slides. 4
doz. and I have 12
extras making 60 in all.

Letter from Allan. his
report is not yet in
the hands of the printer.

Chadwick sent 3 more
photos of birds' nests.

Went with a house party
to hear Massees' address.

The Hall was judged
to be too dangerously
crowded & the meeting
was not held.

The pressman mistakes
mammoth for mammal.

The mammoth room at the Museum
is temporarily closed for repairs, and
will not be re-opened before Monday.

12 Wed.

LECTURES.

CANTERBURY COLLEGE.
UNIVERSITY OF NEW ZEALAND.

POPULAR LITERARY AND SCIENTIFIC
LECTURES.

THE OPENING LECTURE, on "Whales,"
will be delivered by Mr E. R. Waite,
F.L.S., in the College Hall, TO-MORROW
(Thursday) NIGHT, at 8 p.m.

Admission—For the Course of 8 Lectures,
2s 6d; Single Lecture, 6d; School Children,
3d. Tickets at Whitcombe and Tombs, Ltd.,
Simpson and Williams, Ltd., Fountain
Barber, Public Library, and at the College
Office.

GEO. H. MASON,
Registrar.

9279

Attended meeting of the
C. P. I. submitted notes
on Kermadec Is. fishes.
(additional).

Canterbury College.

(University of New Zealand).

Popular Literary & Scientific LECTURES 1911

The Opening Lecture will be given in the College Hall, on **Thursday, 13th July**, at 8 p.m.
The Lectures will be given on each Thursday evening until the series of Eight Lectures is completed.

LIST OF LECTURES.

13th July	... "Whales" ...	MR. EDGAR R. WAITE, F.L.S.
20th July	... "Historic Cities in Hindostan" ...	MAJOR A. ANDREW
27th July	... "The Passion Play at Ober Ammergau" ...	MR. W. H. TRIGGS
3rd August	... ^{George} "John Borrow, the Gentleman Gipsy" ...	MR. H. J. BATHGATE
10th August	... "Chemistry and the Motor Car" ... Illustrated by Experiments.	PROFESSOR W. P. EVANS, M.A., PH. D.
17th August	... "The Origin and Development of the Organ" ...	DR J. C. BRADSHAW, F.R.C.O., ETC.
24th August	... "Modern Fiction" ...	PROFESSOR A. WALL, M.A.
31st August	... "Travels in Palestine and Syria" ...	REV. J. MACKENZIE, M.A.

THE LECTURES WILL, IN MOST CASES, BE ILLUSTRATED BY LANTERN VIEWS.

The object of these Lectures being to encourage a love of Literature and Science, the Board of Governors hopes for the assistance and encouragement of Head Masters, Mistresses and Teachers in securing the attendance of Pupils of Primary Schools.

PRICES OF ADMISSION:

Tickets (Transferable) for the entire series of Eight Lectures **2/6**
Tickets for Single Lecture ... Adults, **6d.**; School Children, **3d.**

Tickets may be obtained at Messrs. WHITCOMBE & TOMBS LTD., SIMPSON & WILLIAMS LTD., and FOUNTAIN BARBER, also at the Public Library, and (during office hours) at the College Office.

GEO. H. MASON, Registrar.

POPULAR SCIENCE LECTURES

MR E. R. WAITE ON WHALES.

The first of this year's series of winter lectures on science and literature was given at Canterbury College Hall last evening. Mr J. C. Adams, chairman of the Board of Governors of Canterbury College, occupied the chair, and the lecturer for the evening was Mr E. R. Waite, who took for his subject "Whales."

The chairman, in the course of a brief address, outlined the programme of lectures drawn up for this year, and stated that, as far as possible, subjects had been chosen which would be of topical or contemporary interest. In introducing Mr Waite, the chairman said that the lecturer had the reputation of being the foremost ethnologist in the southern hemisphere, and his remarks on the subject to be discussed that evening might therefore be confidently expected to be both entertaining and authoritative.

Mr Waite, by way of introduction, dealt interestingly with the various points of resemblance between the whale and other mammals, including man. He showed the relationship between the hand of a man, the wing of a bird, the hoof of a horse and the side fins of a whale. Incidentally he mentioned that the traditional pictures of angels with birds' wings and devils with bats' wings were not zoologically sound, as no mammal had three sets of limbs.

Speaking of whaling, Mr Waite stated that the whalebone whale had acquired the name of the "right" whale in the days when whalers confined their attentions to the balaenoptera, the whalebone being worth £2000 a ton. The sperm whale was not considered worth hunting until a later date. The lecturer briefly sketched the development of the appliances of whaling, from the sailing-ship to the modern whaling steamer, and from the old harpoon or lance to the modern explosive harpoon, which is timed to detonate twelve seconds after striking. The function of whalebone in a whale's feeding operations was illuminatively described, and some specimens of whalebone were shown.

The fate of the larger varieties of whale, when attacked by the smaller but toothed and savage "killer whales," was graphically described, and the lecturer also gave a brief account of the unique method of whale catching adopted to the north of Auckland. The whalers there discovered that numbers of whales frequently passed between a certain two points of rock, and a huge steel screen, with a two-foot mesh, was drawn across the passage-way, many whales being caught in this way.

In regard to the prevalent superstition that whales habitually spout water, Mr Waite said this was quite fallacious. The blow-hole of the whale was connected directly with the lungs, not with the mouth, and it was air which was exuded and not water, though occasionally water which was over the hole was blown into the air as the whale rose to the surface. When a harpoon penetrated a whale's lungs the whale spouted blood. In conclusion, Mr Waite described the characteristics of the principal varieties of whale.

The lecture was illustrated by a large number of lantern views of an exceptionally interesting and unique nature.

EXIT AUSTRALIA.

The form displayed by Bruce Pearce in his match with "Chick" Evans gave rise to hopes that Australia might provide the amateur champion. But it was not to be, for in the sixth round he met with defeat at the hands of Gordon Lockhart, of the Prestwick St Nicholas Club, by 4 and 3.

It was not bad play on the Tasmanian's part that gave Lockhart the victory. It was one of those occasions on which everything came off all right for the winner. Lockhart played splendidly, and almost every time an extra good shot was required he was able to produce it. His form at the short game was wonderful and heart-breaking to his opponent. He certainly gave Pearce a let-off by taking three putts on the first green, but after that he could do no wrong. He won the third, fourth and fifth holes, getting down a two-warder at the fourth and a four-warder for a beautiful two at the Himalayas, while at the sixth, after playing the odd on to the green, he snatched a half by sinking a four-yard putt. He became four up at the seventh, but Pearce won his first hole in the match at the eighth, and then Lockhart won the ninth in a brilliant three, by holing a twenty-five-yard shot, and was four up again. Pearce had played by no means badly, and had only required forty strokes to reach the turn, but that was six strokes worse than the score of his opponent. Lockhart easily held on to his lead coming home, while Pearce was twice the victim of stymies, and the Tasmanian left-hander had to say good-bye to the tournament at the fifteenth hole.

His conqueror was put out in the semi-final round by Harold Hilton, whose play throughout the championship has been little short of marvellous. To-day he meets Lassen in the final, and has only to reproduce the form he has displayed in the qualifying rounds to win.

IF YOU HAVE

A cough, cold, nose throat or lung trouble, stomach, bowel or kidney complaint, rheumatism, neuralgia, USE SANDER'S EXTRACT, five drops in a tablespoon water. Remember you cannot expect the good results from any sort of eucalyptus. SANDER'S EXTRACT CURES, because it contains thermal and antiseptic substances not contained in other eucalyptus products. These latter, made by persons ignorant in chemistry, and provided with fancy names and label by trading concerns, who do not know what they contain, have caused grievous harm, and a death has resulted from their use.

Do not apply an ointment to a sore! It keeps back the secretions. To wounds, bruises, sprains, burns, ulcers, eczema and other skin troubles APPLY SANDER'S EXTRACT: 15 drops in a tablespoonful olive oil. The effect will surprise you. SANDER'S EXTRACT HEALS, because it is freed from the irritating constituents contained in other eucalyptus preparations. It heals when others irritate.

Insist upon the GENUINE SANDER EUCALYPTI EXTRACT, and you will derive the benefit.

{1646}

How many people know that the

13. Thurs.

Letter from Rose, posted
nice, also from
Brauer to which I
tentatively replied. He
has taken over the
agency of the Moerman
houses - Delivered my
lecture on "Whales".
showed 62 slides -

14. Fri.

The newspaper men
leaving before the end
of the lecture missed
the resolution as to
the protection of
Pelorus Jack. (see 15th).

In the course of his lecture last evening, Mr Edgar R. Waite managed to correct a number of popular errors. Notably the statement made by everyone who had occasion to speak of the matter that a horse fell and "broke its knees." What really happened, the horse's forelegs corresponding to the arms of a human being, was that a horse broke its wrists when it came down.

DAY, JULY 14, 1911.

POPULAR SCIENCE
LECTURES.

MR EDGAR R. WAITE ON WHALES.

Last evening Mr Edgar R. Waite, curator of the Canterbury Museum, delivered the first of this year's series of popular science lectures, arranged for by the Board of Governors of Canterbury College. Mr J. C. Adams, chairman of the Board of Governors, introduced the speaker to a fairly large audience.

On his subject, "Whales," Mr Waite was very much at home. He began by explaining how various animals adapted themselves to the elements in which they had chosen to live. By means of lantern slides he showed how the bat had come to resemble a bird, at the same time drawing attention to the essential particulars in which the bat and the bird differed. Following this, he explained the difference between the whale and the fish, making it clear that while in form the whale had drawn near to the fish he had never lost the distinguishing marks of the mammal. He traced the methods of hunting that were leading to the gradual extinction of the whale. Slides illustrated the method of spearing adopted by the Esquimaux, and the rig and outfit of the old-time whalers which confined their attention to the "right" or whalebone whale, whose speed was between four and eight miles an hour. The fate of the

sperm whale, a much faster animal, had come with the introduction of the steam whaler armed with the harpoon gun. Later than this was the vessel armed with a bow swivel gun firing a ball harpoon which was effective at a range of up to 300 yards. The most modern method of whale capture was that adopted at a place to the north of Auckland, where the giant mammals passed through a narrow channel. There nets of steel wire, having a mesh of about two feet were laid, and the whales captured as they swam past. Passing from the methods of capture, Mr Waite turned to the different classes of whale, illustrating the chief classes by lantern slides, and explaining the various marks by which the one might be distinguished from the other.

In his introductory speech at the first of this year's series of Popular Science Lectures, delivered by Mr Edgar R. Waite, in the College Hall last evening, Mr J. C. Adams, chairman of the Board of Governors of Canterbury College, said he believed that the public would find the syllabus of lectures for this year quite as interesting as those of previous winters. With one exception, one lecture being purely scientific, all those set down would be of both scientific and literary merit.

Mr Edgar R. Waite introduced his lecture on whales, delivered in the College Hall last evening, by the statement that he had had no difficulty in deciding upon his subject. When a man whom he had not seen for a week or a month met him, he did not ask "How are you?" He asked "How is your whale?" So when those who were responsible for the syllabus of the lectures approached him, and asked him on what subject he would speak, he had answered at once, "Whales."

POPULAR SCIENCE LECTURES

MR E. R. WAITE ON WHALES.

The first of this year's series of winter lectures on science and literature was given at Canterbury College Hall last evening. Mr J. C. Adams, chairman of the Board of Governors of Canterbury College, occupied the chair, and the lecturer for the evening was Mr E. R. Waite, who took for his subject "Whales."

The chairman, in the course of a brief address, outlined the programme of lectures drawn up for this year, and stated that, as far as possible, subjects had been chosen which would be of topical or contemporary interest. In introducing Mr Waite, the chairman said that the lecturer had the reputation of being the foremost ethnologist in the southern hemisphere, and his remarks on the subject to be discussed that evening might therefore be confidently expected to be both entertaining and authoritative.

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*see
+
over*

Speaking of whaling, Mr Waite stated that the whalebone whale had acquired the name of the "right" whale in the days when whalers confined their attentions to the balaenoptera, the whalebone being worth £2000 a ton. The sperm whale was not considered worth hunting until a later date. The lecturer briefly sketched the development of the appliances of whaling, from the sailing-ship to the modern whaling steamer, and from the old harpoon or lance to the modern explosive harpoon, which is timed to detonate twelve seconds after striking. The function of whalebone in a whale's feeding operations was illuminatively described, and some specimens of whalebone were shown.

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The lecture was illustrated by a large number of lantern views of an exceptionally interesting and unique nature.

See cutting (ante).

The Chairman said
"Ichthyologist." though it
does not follow that a
fish-man may know
much of whales. I
suppose "ethnologist" is
near enough for the
Newspapers.

A young fellow :—
Arthur Tait brought
letter of introduction
from Roebuck. He is
a cabinet maker &
I promised to do
what I can for him.

Wrote notes on Kermadec
Is. fishes. 4 records—
Spent evening at the
Prices.

15. Sat.

Having mentioned the omission (see 14th) to newspapers the following appear - wrote report for Committee. Called on Bridge at Technical College re Tait and made appointment for the latter. Look Claude to pictures in the evening.

"Times."

PELORUS JACK,

PRESENT PROTECTION SAID TO
BE INADEQUATE.

SOME FACTS ABOUT RISSO'S DOLPHIN.

Peloru Jack, the "grampus griseus" that inhabits the waters of French Pass and pilots steamers through the entrance, is said to be in need of a greater degree of protection from the "pot hunter" or alleged sportsman, and since his reported death a month or two ago, which was happily premature, more attention has been directed to him.

[111]

The Rev D. C. Bates, Government Meteorologist, who first identified Pelorus Jack as Risso's dolphin, or grampus griseus, has taken the matter up and is urging a much heavier penalty for molesting his old friend. In a letter written to Mr E. R. Waite, curator of the Christchurch Museum, who is regarded as the leading ichthyologist in New Zealand, Mr Bates has suggested that a special Act should be passed protecting "Jack" for all time and fixing a heavy penalty for his injury or wilful destruction.

"Pelorus Jack" was first protected by Act of Parliament in 1906, but the protection expired on May 31 last, and an Order-in-Council was gazetted extending the protection for three years, or rather extending the close season "for the fish or mammal of the species known as Risso's dolphin," the penalty for breach of the order being not less than £5 nor more than £100. Those interested in the "fish or mammal" consider the penalty ridiculously small, and ask why the Order-in-Council stops at three years' protection. The matter was raised by Mr Waite at the conclusion of his lecture on "Whales" on Thursday evening. He showed two lantern slides of Pelorus Jack, which, he said, was a whale, and urged the advisability of greater protection. On the motion of Mr J. C. Adams, it was unanimously resolved to urge the passing of a brief Act protecting Pelorus Jack under threat of heavier penalties "for the term of his natural life."

The world-wide celebrity that Pelorus Jack enjoys is evidenced by the fact that since the report of his death was cabled Home not long ago Mr Waite has received letters asking for particulars of his demise. The story of his affection for steamers trading through French Pass is not generally accepted as gospel in other parts of the world, and a New Zealander who some time ago retailed the facts at the Lambs' Club in New York was hailed as a romancer of the first water, and treated accordingly, and when Mark Twain rose gravely and corroborated the story, alleging that he himself had seen the fish, the New Zealander also got the palm as a jester, and was afterwards known as the man with the finest fish story on record. Since then a few American tourists have had their doubts removed by an introduction to Pelorus Jack, and one of them is alleged to have nearly lost his life on board the s.s. Penguin after

taking a shot at the pilot fish. Since then it is suspected that Pelorus Jack has been fired at more than once, and it is feared that the present penalty is not a sufficient deterrent against poaching.

A reporter asked Mr Waite yesterday if he had any records of the longevity of the Rissos dolphin family, but he could give no definite information. He pointed out that it was impossible to observe any particular whale. They were known to be very long-lived, and probably the big whale at the Museum had been 150 or 200 years old. It was impossible to say how old Pelorus Jack was. He was glad to see that immediately on receipt of the report that Pelorus Jack had died the Minister of Marine had sent an expedition to collect the bones which were supposed to be lying on the beach. The remains would certainly be interesting.

16 Sun.

Cycle ride to Belfast
with Mr & Mrs Bridge
returned with them
to tea.

17 Mon.

Took phonograph &
2 doz "records" to the
Misses Allen & gave
them at evening, at
Dykefield House -

18 Tues

Spent the middle of
the day at Dyers
Pass going with Mr
& Mrs Cresswell & Mrs
Bridge - Lectured to
C. E. M. S. at the
Phillipstown branch
on Trawling in N 3.

19. Wed.

The Phillipstown Anglican Sunday Schoolroom was well filled with men last evening, when Mr E. R. Waite, curator of the Christchurch Museum, gave an address under the auspices of the Church of England Men's Society, on "Trawling in New Zealand." Mr Waite's address proved to be very entertaining and instructive, and his lecture was enriched by an excellent collection of lantern slides. At the conclusion of his address Mr Waite was accorded a hearty vote of thanks, on the motion of the chairman, the Rev E. Edwards.

Wrote to Rose and Brauer, letter from Paterson. Gave Haynes a letter to Nielsen at Napier whither he leaves on holiday to-night. Wrote Roebuck re Arthur Tait to whom Francis offers work.

20 Thurs

Letter from Rose, posted mine. Lunched with Mr Rich. Spent

evening at Cresswells.

21. Fri.

went with Clara Allan
& Champney to a
phonograph concert &
bought Aubertol No 617.

22. Sat.

Owing to unpromising
weather decided against
Mt Herbert tomorrow.

Spent evening at the
Cresswells.

23 Sun.

Rain - In workshop -
Had tea with Cresswells
& music afterwards.

24 Mon.

Heavy rain. Had a
preliminary look at
Hegouckthys sent

by Hamilton. Received
Letter from Registrar
The Museum Committee
conveyed "great appre-
ciation of 'Records' &
thanks for the labour
spent".

25 Tues

Juter hurt his knee
while coming to Chch
& is detained at Wel-
lington. I wrote to him
& sent news clipping to
Hedley. The following
is the miserable notice
of the "Times" which
was printed on 15th.
Called on Dr Gibson
Left sample of urine.

MUSEUM RECORDS.

A third portion of the "Records of the Canterbury Museum" has been published by Messrs Whitcombe and Tombs. The new volume deals with the results of the Government trawling expedition of 1907, and contains (1) the second portion of the list of fishes taken, and "The Outcome of the Expedition," by Mr Edgar R. Waite, F.L.S., curator of the Museum; (2) the second part of the description of mollusca, by Mr Henry Suter; and (3) an account of the collection of crustacea by Dr Charles Chilton, F.L.S. The remarks made by Mr Waite upon the edible fishes of the New Zealand waters are particularly interesting and constitute a very valuable contribution to a department of knowledge that is sadly neglected by the general public. The volume is illustrated by numerous plates.

26 Wed.

Letter from Brauer -
he has appointed
Hardie & Gorman my
new agents for the
Sydney properties.

Received 7/6 from 'Press'
for Chadwick's photos.

Obtained draft £20
to send to Rose -

27 Thurs.
Letter from Gibson
no sugar or albumen
in urine. Sydney
boat failed to connect
with Wellington mail.
Posted letter to Rose
& £20 draft. The
Mayor - "Johnny Taylor"
died to-day. Spent
evening at the Bridges.

28. Fri
Letter from Rose ~~to~~
Went to Theatre "The
Acadians" with Mr
& Mrs Watson. A poor
"Do."

29 Sat.

Worked afternoon & evening at occasional table top. Little Akaloa Cheese box.

30 Sun.

The Mayor's funeral Claude went to the Speights to dinner & I followed to tea.

A.M. Mrs. Wright also there -

31. Mon.

Left the "Bat" with Behen to overhaul the carburetter. Letter from Mr. Waite & Wilfrid, a son born to the latter "Wilfrid Mark Christian".

August.

1. Tues.

Finished drawing of
Aegonichthys appelli.
Spent evening at the
Allans. Flute Violin &
piano trios. Letter
from Rose via Auckland
& one from Brauer who
has arrived there -

2. Wed.

wrote Wilfrid. Meeting
of C. P. I. Cockayne on
Ecology of Plant-life.
Claude to pictures -

3 Thurs

Posted letter to Rose
wrote Hardie & Gorman
& Paterson & Ogilby.
Letter from Rose & Allan

the latter criticizing
points in my trailing
paper.

4. Fri.

Reken says that the
Anas carburetter is
built for racing & is
not suited for slow
running he fitted a
Brown Barlow. I paid
him 7/- for 12 prints of
Mr. Crosswell's photo.

5. Sat.

As the motor is still
very fast I reduced the
size of the jet & fitted
a new adapter. it is
much improved. Advertised
the Minerva 10/- and the
Carburetter 15/-

6. Sun.

Sold Carburetter to a
caller at 10. am. 15/-
Had tea at Bridges -
Had a run round on
the Bat. calling to see
Haynes.

^{mon} 7. Haynes returned to
work. Attended Council
meeting C.P.I. Suggested
taking "American Naturalist"
approved. Several callers
re Minerva cycle. but
no sale. ~~7th~~

8 Tues

Wrote note on Saccarins
to go with Algeonichthys
note. Arranged to give
short address on Deep
Sea fishes when reading
on Algeonichthys to C.P.I.
Heard Sousa's Band. (153)

9. Wed.

Spent evening at the
Crosswells. Cards. Chilton
lent me some lantern
slides - deep sea fishes.

10 Thurs.

Made negatives for
lantern slides of deep-
sea fishes. Letter from
Rore. Replied & wrote to
Allan. Caught cold in
the Drill Shed, "Souza's
Band." Very seedy to-day
but took Claude to
Ewan's lecture on
Chemistry & the Motor
Car.

11. Fri.

In bed had several
callers who looked
after me.

12 Sat.

Got up in afternoon
Brauer called, he
arrived from Auckland
this morning.

13 Sun

Better to day, Took
the "Bat" to Bekeu who
still further reduced
the size of the jet &
the suction chamber.

Dined & had tea at the
Mhaus, ran phonograph
for them, met friend
named Postgate who
are now living in
Clare Rd. near to us.

Mon

~~13~~ Brauer paid me

14 £8. 13. 5 leaving £10
due in respect to
rents collected, the

total being £20. 13. 5
£2. of which he had
paid to Rose.

15 Tues.

Spent evening at the
Princes Mr. Wm. Herdman
Smith, also there. wrote
to Rose. Paid gas bill -

16 Wed.

In writing my monthly
Report applied for leave
to enable me to visit
Australia. Made some
lantern slides for the
address. Took Claude
to the pictures

17 Thurs

Letter from Rose, she
announces to return
the 'end of the month'

necessary
clause 2 of the foregoing report.
The Museum and Library Commit-
tee's report was considered in commit-
tee, and was agreed to. It was as
follows:—That the Board of Governors,
in view of the fact that the Early
Colonists' Department at the Museum
was established for the purpose of col-
lecting exhibits illustrating the early
history of the city and provincial dis-
trict, sees no reason for enlarging the
scope of that department, but hopes
that the committee will still continue
the valuable work on the original lines.
That the tender of Messrs Smith and
Anthony, Ltd., for binding the library
books, etc., for a period of three years
from the 1st August, 1911, be accepted
at the prices quoted in the tender. The
committee also reported having granted
the curator of the Museum leave of
absence for six weeks to enable him to
visit Australia, and having authorised
him to expend up to £50 from the an-
nual vote for the purchase of specimens.

18. Fri

(186)
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The "Moana" leaves
on the 26th. Committee
granted me six weeks
leave & placed £50
at disposal for purchases
as I suggested.

18. Fri.

Mounted lantern slides
of "deep sea fishes" &
spent evening at the
Crosswells. The Bridges &
Misses Curlett, also there.

19 Sat.

Repacked trunk on Bat
took Claude to town at
night. bought crockery.

20. Sun.

Towed Claude as far
as Wainoni (Haynes)
& continued to New
Brighton where I spent

some time with Suter.
Returned to town & then
to Belfast to meet Mr
Grigg & Campbell who
had gone to Kaiapoi.
on Motors, but did not
find them, they reached
Inglefield late for
dinner. At night I
put together the Cheese
- box table for Rose.
21 Mon.

The willows are showing
a tinge of green. Went
to Musical Union Concert
with Clara Allan & Mr
Grigg. Obtained book
case for my workroom
at the Museum £3.
Sydenham W.M.'s Club.

Obtained a large (21")
example of Cubiceps.

22. Tues.

Made more lantern
slides. Post Card from
Rose - She will leave
on the 26th.

23. Wed.

Took Claude to pictures.

24 Thurs.

Letter from Rose. I
spent evening at the
Bridges.

25 Fri

Received intimation
that I could have
the lantern slides of
my whale lecture
by paying for them
or otherwise hand over
the slides. Chose

the latter course.

26. Sat.

learned that five more
Cubiceps had been in
the market. I saw one
but it was the resi-
due & not worth taking.

Finished the table with
stain & french polish.

Bought a second-hand
emery grinder for 7/6.

27. Sun.

Went with Campbell &
Griff. Motor Cycles. to
Riccarton Racecourse &
after dinner gave a
photograph recital -

28 Mon.

Prepared diagrams for
address on deep-sea
fishes. Spent evening

at the Bridges.

29. Tues.

Bought Japanese Buddha
in cabinet from R.
Proctor for £4. Made
negatives for lantern slides.
Paid entrance fee for
membership of N. Cant
Motor cycling Club. 5/-

30. Wed.

Spent evening at the
Allans. Wrote to Rose
- S. S. Moana - Wellington.
Received telegram, she
will not arrive until
Friday.

31. Thurs.

Chamberlain "did-up"
the garden. I planted
flower seeds.

September.

1. Fri.

Met Rose at Lyttelton
dined at the Allan's
in the evening. Phono-
graph.

2 Sat

Spent afternoon in the
garden. Evening. Cresswells

3 Sun.

Had tea at Bridges's.

4 Mon.

Letter from Marine
Dept. Minister will
pay Whitcombe & Doubo's
etc but will not under-
take publication of
Handbook to N. Z
Flatfishes I had sug-
gested to him. Took
Rose & Claude to the

Pantomime "Jack & the
Beautalk."

5. Tues.

Told Whitcombe that
the Minister would pay
the firm's exp. but
declined the further
publication. Brauer
had his final dinner
with us, he leaves on
Thursday for good.

6. Wed.

Address to C. P. I.

When the Waratah disappeared from human ken, Mr E. R. Waite, curator of the Canterbury Museum, received a letter asking him to decide a wager about a question relating to that ill-fated vessel. The question was—"If the Waratah sank in mid ocean, would she drop right down till she reached the bottom, or would she merely drop down a certain depth till the pressure stopped her from going further, so that she would then be carried hither and thither far below the surface at the mercy of currents?" Mr Waite mentioned the matter at last night's meeting of the Canterbury Philosophical Institute. He said the answer was that the vessel would sink down to the very bottom of the sea.

A demonstration of

PHILOSOPHICAL INSTITUTE.

MONTHLY MEETING.

The monthly meeting of the Philosophical Institute of Canterbury was held last evening, Mr A. M. Wright presiding.

Mr R. Speight, assistant curator at the Canterbury Museum, gave an address on "Bogs, and their influence on Climate." He laid stress on the geological aspect, rather than the botanical aspect of the subject. Referring to rainfall, he stated that he had been unable to detect any periodicity in rainfall in Canterbury. That, however, might be due to the imperfection of the records. The average annual fall in this province was 26 inches. The diminution of rainfall in certain countries was attributed to the cutting down of forests, but this was not the cause. The influence of forests on the rainfall was greatly overestimated. In all probability if the whole of New Zealand forests were cut down, it would not diminish the annual rainfall by one inch. The lecturer detailed the origin of bogs, explaining the connection between bogs and lakes, and how the latter were filled up gradually with vegetation. He referred to the gradual destruction of trees under the influence of bogs, and the peculiar fact that the water in bogs was always icy cold. He also displayed pictures of sections of bogs in the Shetlands, the South of Scotland, and Sweden, which showed in an instructive way the alternation of cold and milder climates. He urged that it was most important that for the sake of the light they would throw on the history of the country, the bogs in New Zealand should be studied before they disappeared under the influence of stock. The lecturer was accorded a very hearty vote of thanks.

Mr Edgar R. Waite, curator at the Canterbury Museum, delivered an address on "The modification of deep sea fishes to suit their environment." He remarked incidentally that the greatest depth that had been plumbed in the ocean was between the Kermadecs and Tonga, the depth being 5155 fathoms, or 30,930 feet. Fish had been taken down to 1800 fathoms. Mr Waite displayed an excellent selection of slides, showing the peculiarities in the way of mouths, teeth, and bodily shapes assumed by deep sea fishes as the result of the rarity with which they were enabled to enjoy "a good square meal," and also slides illustrating the effects of the absence of light. He was accorded a hearty vote of thanks.

Dr. Chilton presented "Some notes on some New Zealand Crustacea." This paper was of a technical nature, and was taken as read.

Mr R. Nairn submitted an exhibit illustrating the changes caused in the characteristics of plants by their endeavour to adapt themselves to their environment.

It was announced that at the next meeting Mr A. W. Beaven would speak on "Profit Sharing."

Whitcombe & Tombs sent
me a Chq. for £10.10.0
"for drawings supplied"
I sent £10 to Joseph.
Amount borrowed from
him by Rose.

7. Thurs.

Handed my negatives
of N. Z. Birds to Beken
to make lantern slides
for "James Buckland-
Colonial Institute" who
is lecturing on the
preservation of birds.

8. Fri.

Took Rose & Claude to
"Nicola" conjurer -

9. Sat.

Spent afternoon in the
garden. The Cresswells
came in evening -

10. Sun.

The
Bridges came to tea.

11. Mon.

Resigned examinership
of Boy Scouts, the work
submitted being too

Slovenly for me - Took
the Bab to Beken at
night - He considered
that the platinum con-
tacts have gone, been
filed away. !!

12. Tues.

Planted Cabbages Cauli-
flowers & potatoes &
set seeds of Vegetables.
Spent evening at the
walkers.

13. Wed.

Frank wrote me his
resignation, he is to
take up Cabinetmaking.
his father's trade.
Museum Committee
meeting.

14. Thurs.

Spent evening at the
Bridges. Letter from
Gill re Neophrynichthys
Letter from Allan with
tracing of Smith's
figure (Cubiceps).

15. Fri.

Meeting Early Colonists'
Committee - Bekeu
fitted 2. Platinum
contacts to magneto.
Letter from Farr. he
returns about Jan 24

16 Sat

Postgate borrowed some
Phonograph Records. A
wet day.

17 Sun.

we visited Postgate's

in afternoon too wet
to go far.

18. Mon.

Still raining hard
Council Meeting of
C. P. I. All went to
Prices to tea.

19. Tues.

Rain. Engaged passage
to Sydney via Auckland
returning via Wellington
by "Wimmera" 27th.
Mr. Bridge came in
evening and we cut
70 ft. of oak slips
on circular saw.

20 Wed

Packed books to take
to Sydney for binding.
Packed things for
Rupert's (Denny) Museum.

Heavy hail storms. The
Cresswells came in the
evening.

21. Thurs.

weather fine again.
Bought second-hand
game bag 4/-

22. Fri.

The Bridges spent the
evening with us.

23. Sat.

Got carrier made for
Bat. toolbag. Spent
evening at Cresswells.

24. Sun.

Took Rose to see the
military funeral of
Col. Hawkins.

25. Mon.

Gave Chilton a letter
to Roland Blades to

use during his 12
months leave in
England. Called on
Mr. Rich for messages
to Mr. Haswell. Rose
wrote to Annie Hall
apprising her of my
visit to Auckland.
Misses Allan spent
evening with us.

26. Tues.

Cheque from Hardie
Gorman £5. 15. 11
which I will take
to Sydney with me
Bank £30 for Rose
during my absence
withdrew £40 for
my own holiday &
got letter of credit
for £60 on behalf

of Museum. Took
ticket to Sydney via
Auckland & return via
Cook Strait. Kuissey
allowed me 20% un-
asked off the £14.10.0
Beale bought me a
second-hand motor
pump at auction. I
paid him 4/- Bury
packing. Evening at
the Bridges

27. Wed

Rose had a letter
from Belle, she gave
bad news. Herbert
had speculated, lost,
& borrowed £160 from
Ernest. Sent off
luggage including the
"Bat" & left with

Rose + Claude by
7.40 train - They
saw me off by
the "Wimmera" at
9.30. pm.

28 Thur.

Arrived Wellington
10.0 Called on &
had lunch with
Hamilton. Talked
over Fellowship scheme
of N.Z. Institute as
propounded by Cock-
ayne which he
favoured. He has
mounted my plates
of Kora Kwen fishes.
Next to the Newtown
Museum, obtained a
~~Amson~~ Areosoma ?
or whatever it is

on loan. I was
told that it was
intended to send it
to me. Returned to
town, called on Ayson
& saw Allport & then
to Post Office. Sent
letter - cards to Rose
& Speight, then to
the boat for 4:00
O'clock sailing but
found postponed to
5:00. & finally got
away at 6:30.

29 Fri.

Made a rapid run
of 15 hours to Napier.
Walked to the Spit
& saw the Kiersens
back to the boat to
lunch, then walked

into Napier and took
the bus to the Spit
Had tea at Nelsens.
learned that Danne-
vig had lost his
ticket, too fond of
the drink, as I knew
walked to the Waimera
which left to time
at 8.30 pm.

30. Sat.

Reached Gisborne. I
went ashore in the
tug had breakfast
& walked in rain to
see the Capt. Cook
obelisk, one side had
the purport of the
erection engraved on
it & the others the
name of Troopers who

fell in the Boer War!!
The tug went out
again at 10. am.

Took off & put aboard
a launch a number
of passengers for
Tokomaru by means
of a basket, handling
it just like cargo
in the slings. Three
people were put in
the basket at once
& the launch, a very
large one rose &
fell on the waves -
if the launch was
on the descent when
the basket reached
the deck, landing
was comfortable, but
when the reverse

happened the bump
could not be nice.
at Gisborne I received
a telegram from the
Halls saying they
will meet me.

October

1. Sun.

A fine passage to
Auckland where I
was met by Annie
& Gerty Hall. Dined
at their boarding-
house and afterwards
also with Miss Evers-
leigh & Mr. Hutchinson
went to the North
Shore & walked along
Grifton beach. After-
noon tea & returned
to Mountnessing -
Had a stroll with
the girls after tea
rejoined the boat
& slept aboard.
Wrote to Rose and
Claude.

2. Mon.

Called on Cheeseman
and looked over the
mounted fishes, he
let me take away
the type leg-bones
of Dimorphis oweni
+ I lunched with him
he is not keen about
the N.Z.I. fellowship.

Left at 5.30.

6. Fri.

Arrived at Sydney
at 1.30 but did
not get my luggage
out till 3.0. 1.
box lost, contains
my books - lantern
slides of the whale
lecture, motor bag
+ tools, models of

The Cullinan Diamond.

Stored motor boxes
+ put up at "Grand
Central" Obtained
letters from Rose +
Brauer

7. Sat
Posted letters to Rose
+ Wilfrid. I met
Etheridge and went
with him to the
Museum, had a
general look round.
Removed "Bat" from
stores to a garage -
To Neutral Bay in
the afternoon + had
tea with the Halls.

8. Sun.
wrote to Annie +

Gerty Hall & Brauer
went over to North
Shore, house hunting
met David who
asked me to lunch
tomorrow. he also
spoke of me going
down with Lawson
in respect to the
dredgings off the Barrier
etc. and said if I
would be prepared to
go he would write
to Lawson as he
considered I should
be just the man he
wanted. Got fixed
up at Mrs Lopez's
"Benlah". Back to
the hotel to dinner
Called on Josephs

and went with them
to Mrs De Groen's at
Broute.

9 Mon.

Arranged for luggage
to be sent to Beulah
& goods to Museum.
Called on Paterson &
arranged to lunch
with him tomorrow.
Went to University
called on Haswell &
lunched with Prof.
& Mrs David. Had a
long talk with Frank
Jarnell on Fisheries
matters and spent
most of afternoon
with Coates at Tost
& Rohis, picked out
some Vitschkis for

the Museum. Rain
to day. Went to
the Hellowell's in the
evening. Our old
boat the 'Ormuz' is
now in port, her last
visit, as she is to
be taken off the
Australian running.

10. Tues.

Paid insurance premiums
on Headingley & Burley,
raising the amount on
the former to £400.
Letters from Rose &
Mrs W. Shaw both the
Shaws, obtained speci-
mens of Commonwealth
cornice 2'- 1'- 6" 3' 1'-
Lunched with Paterson
arranged for holiday

with him commencing
Friday week. Took the
'Bat' to 'Benlah'.

11. Wed

Spent this day on
the Bat. Rode via
Chatswood to Hornsby
& home by Parramatta
had lunch with Mr
Mc Culloch, thence to
Tempe. Arranged to
go to Narrabeen with
Dr Vause next Wed.
Dined with the Hedley's
in the evening. Hedley
told me that Lawson
wanted him to go
south to manage the
Oceanographic records
but as he is going
to England he cannot

I mentioned that David had sounded me on the matter & Hedley said Mawson would be in Sydney before I left.

12 Thurs

Unpacked boxes at the Museum. Bought a Monkey for Haynes £3. as a mate for "Bummy" this being a female. Mawson has asked Speight to go to the Macquarie Is. in connection with his Antarctic Expedition. The inspectorship of fisheries has not been filled yet but Fonnell told me that he

had been informed
that an appointment
would soon be made.
He himself is an
applicant, but did
not imagine that he
would be appointed
saying that he could
not take the position
under the present
Under Secretary. I
understand that no
British applicants will
be entertained. Though
the position was ad-
vertised in England.
wrote to Rose & Mr W.
Spleight and Haynes.
Also to Nellie Beale
& Fanny Bowling.

thus wiping off some
long neglected corres-
pondence -

13 Fri.

Spent the whole day
at the Museum. Read
proofs of Allan's fishes
of the Endeavour Exp.
Bought 2 Hypsiprinus -
nodon moschatius &
2. Dendrolagus lumholtzi
from Grant. Placed
N. 2. Bird skins with
Museum for exchange.

14 Sat.

Went to the city. Got
a letter from Brauer
Called on shipping Co
No trace of missing
box, may come next
Friday. Called on

Secretary of the Public Service Board. Who said that the Chief Inspectorship of Fisheries had not been filled. Cherry is now with Wynn Roberts & I went with him to his home Warrewa to lunch & dinner.

15. Sun.

To Balmain, had dinner with Paterson & the Douns.

16. Mon.

Spent morning at Museum, literature, found that Fowler had written on fishes from Victoria & had

associated my name
with some farms. Ar-
ranged to see Etheridge
tomorrow. Took Pat
out in afternoon &
rode to Mosman Had
a look at the houses
the shrubs & creepers
had grown to such
an extent as to render
'Burley' scarcely re-
cognisable. Met Mr
Duncan Chisholme (Pearl
Lucas) who stopped me.
Called on Meebow's but
saw only Marion.

17. Tues.

Letter from Paterson
he proposes to leave on
Saturday for Wyong
for Tuggerah Lakes.

Saw Henry Barnes &
Casting Mura bones &
made a selection of
Marsupial skins for
exchange. Met Whitelegg
took him to lunch &
we then went to Coogee
walked to Maroubra
which has been quite
spoilt by the erection
of small houses &
then to the tram on
Long Bay road. On
the Maroubra sand
hills we gathered
some Aboriginal worked
stones & near the
swamp disturbed a
large black snake.
Called in at the

Zoo on our way
home. Met Le Souef
& gave Whitelegg 10/-
on parting. At night
I went into one of
the open air picture
shows at N. Sydney
& saw Mrs. Meeson &
Marion. Letter from
Hellowell inviting me
to Orchestral Concert
but I shall be away
with Paterson on that
occasion.

18. Wed

Wrote to Rose. Called
for letters. Got one
from Speight only.

Letter from Haswell
inviting me to lunch
on Sunday. declined

as I expect to be
absent with Paterson.
Bought some zoological
postage stamps. Bought
pair boots. Arranged
for rocks to be sent
to David Saw Henry
Barnes re casting
moa bones. Telephone
Dr. Vane, he cannot
get to Karrabeen to
day. Arranged for
certificate in respect
to the monkey. Had
a run on the Bat
in afternoon.

19 Thurs.

Spent morning at the
Museum. Examined
the Newtown Museum
fish which I found

to be as suspected
Oreosoma though I
spelled it wrongly
(see 28th) Allan thought
it wonderful that I
should be able to
identify such a queer
creature from the
remembrance of Goode
& Bean's figure - Also
looked into the files
of Kermadec Islands
got belated letter
from Rose - Had a
spin on the Bat in
the afternoon

20. Fri.

Called on E. J. Welch,
who is hale & hearty
jolly as ever at 74:
Had a demonstration

on the Acograph with
Allan. Paid Grant £8
for 2 Dend. lumholtzi
+ 2 Hypiprymnodon -
Arranged to pay Hy.
Barnes for making 16
moulds of Moa bones.
Posted letter to Rose
"Victoria" not in up
to 5.30. Saw Etheridge
re. S. A. Museum &
wrote to Sterling as
a result. Robertson
lent me some books
to read while away.
Borrowed 20 bore gun
from Museum -

21. Sat

Boarded the "Victoria"
but no trace of the
missing box. Got

The gun bought 75
cartridges lunched with
Paterson and together
took the 2.5 train
to Wyong. Then the
launch across the
Lake (Tuggerah) to
Kurragi. putting up
at "Pinchurst," (Taylors)

22 Sun.

Put in a week here
swimming fishing
rowing and shooting.
Pelicans Ibis + Shag
on the lake, various
waders on the flats
Gulls Tern Hawks +
Sea Eagles in the air
One day wading in
shallow water I saw
a Stingray + put a

charge of to 4
through its Vertebrae
it never smiled again.
A man here named
Howarth who styles
himself "Uncle Sam"
had a backyard
Menagerie. A green
Monkey, Manx Cat
(caged) & birds of
various kinds. Posted
letter to Rose and
arranged to leave
on Friday, 27th. Took
a few photos, a
nest of Swallows,
fishes in water one
of Paterson & self.

27. Fri.

Just as we were

on the point of
leaving by the launch
and having every-
thing packed up I
saw a Black Snake
lying on the ground
within 15 paces of
our bedroom. I got
out the gun & put
a charge of No 4.
at its head. The
mail brought me
letters from Roebuck
& Mr. Tait, both
referring to bad
cable news of young
Tait & asking me
to investigate. Also
a letter from
Haynes re purchasing
birds for him -

Left Karagi by
launch at 2.30
crossed the lake
& took 4.35 train
at Wyong. Changed
at Strathfield leaving
Paterson to go on
while I journeyed
to Parramatta, stayed
the night with
Allan.

28. Sat.

On reaching North
Sydney found
letter from Huddart
Parker & Co await-
ing me to which
I replied wrote to
Arthur Tait Sen^r
Institute of Science
Leeds, in reply -

wrote to Mr Waite
85 Headingley Avenue -
Met Allan after
lunch & we went
to Maroubra & had
a roll in the surf.

29 Sun.

Had a run on the
Bat. Called on the
Halls, learned that
Mr. Hall & Beatrice
had gone to Rotorua
& picked up Annie
at Auckland. They
told me that Miss
Cohen (Dunedin) was
travelling by the 'Moana'.
Then went on to the
Hellsells and with
H. to Clifton where
we had a swim in

The fine baths, said
to be the best in Sydney.
Returned to 'Westview'
to lunch. Asked Mr H
to buy something for
me for Rose. Wrote
to Gerty Hall, asking
her to make inquiries
re Young Tait.

30 Mon.

wrote to Milner &
asked him to provide
Kentias to value 10/-
Exchanged box of
unused cartridges
for motor cycle rear
reflector (red). Got
letters from Speight
& Rose. Bought a
second hand "C"
Clarinet for Claude.

£1. and a tutor $\frac{1}{6}$
Selected birds for
Haynes. Bought a
selection of Japanese
Kitschies for Museum
£5. from Coates. Got
spectacles frame re-
paired at Prior's.
Wrote Haynes, lunched
at the Josephs. At
the Museum suggested
that I buy an Oo-
graph & put it in
as exchange for the
skins selected.

31. Tues.

Obtained certificate to
take monkey & birds
to New Zealand. At
the Museum, selected
further lot of mammal

Skins in exchange &
to balance cost of the
Aerograph £7. Saw
Paterson then went to
Tempe. Dr. Vause has
now gone in for poul-
try farming (4 incubators)

TROUBLE EXTENDS TO NEW ZEALAND.

REFUSAL TO REMOVE PASSENGERS' LUGGAGE.

AUCKLAND (N.Z.), Monday.—The waterside workers declined to unload the luggage of passengers arriving by the steamer Victoria because it was loaded by "blackleg" labor at Sydney. The crew of the steamer therefore performed the task.

The steamer Wimmera is leaving at 5.30 tonight, but is carrying no cargo.

November.

1. Wed.

wrote to Roebuck in
reply. Letter from
Brauer. Letter from
Rose - finished mine
to her. Paid Coates
£5 for Nitsch
Paid Harrington's £7
for Olograph & got
receipt endorsed for
exchange at Museum.
Paid to Museum
£12 to hold in trust
for Mr. Barnes in
respect to moulds
& casts of Moa bones.
Paid £8. 18. 0 for
Monkey & birds on
behalf of Haynes -
Cashed my draft.

(personal) £40 with
which to meet some
of the expenditure.
Learned that owing
to the strike Union
Co might refuse to
ship motor cycle -
Took Hellowell to
lunch in town - Rain
to day welcome change
from heat yesterday.
Bought dirt. 8 cr.
Sold solder $2/3$. for
repairing watch guard.

2 Thurs.

Letter from Paterson asking me if I would sell my Pony Premio No 3 $1\frac{1}{2}$ plate camera. Took it to Harringtons had it valued - £6. & Paterson agreed to take it at the price. includes 6. D.B. and leather case. Bought from Harringtons for £6. 5. 0. a. 5 x 4. Sanderson Camera
1. Film pack carrier
3 D.B. & leather case.
As commission re the Aerograph they gave me 2 packs of films. Outfit cost £10. 10. 0 when new.

Camera	9. 0. 0
Case	1. 1. 0
Adapter	6. 6
" fitting	2. 6
	<hr/>
	£ 10. 10. 0.
	<hr/>

The Premo is the one
 I got from Batson,
 Franz Josef Glacier
 Hotel in exchange
 for my 5x4 Premo.
 A size I have now
 gone back to. I
 added 3 of the 6
 Double Backs, later -
 Picked up boxes at
 Hellowells, including
 the things Rose had
 ordered & the present
 for Rose which I
 asked Mr. Hellowell

to buy for me. I
learned that she
had received another
order which Mr. H
will execute tomorrow.
Met Whitelegge and
bought $\frac{1}{2}$ doz. fulgurites
which he had got
at Maroubra. To
Museum and packed
all goods excepting
Mammal skins wh.
have to be submitted
to the Board tomorrow.
wrote Paterson and
asked him to put
aside for me any
discarded drills etc.

3. Fri.

Rode Bat to Museum
but find I cannot

have it put aboard
to day owing to the
Wharf strike. Took
Premo Camera to
Pateron who paid
me - £6. - and gave
me some burrs etc.
Put plates in the
'Sanderson' - Bought
a present - Silver
knife & fork in case
for Wilfrids baby 25/-
& had it sent on -
Hardie & Gorman paid
me Rent £4. 4. 0 to
date, less charges,
rates etc. Wrote to
Wilfrid.

4. Sat.

Arranged for my

goods to be collected,
Luggage from Kiriabilli,
Specimens from Museum
monkey birds and
tortoises from the
markets. Obtained
Stock Inspector's certi-
ficate. Left by the
"Moana" about 2
lumpy outside the
heads -

4-8. At sea. I was
with the wireless
operator on the
night of the 7th
when the message
came through that
"The Parisian" had
won the "Melbourne
Cup." Arrived at
Wellington on 8th.

about 3.0'clock -
8 hours late.

Received letters on
board from Rose &
from Gerty Hall
the latter giving
me the address of
Arthur Tait. wrote
to him, and his
father, to Rose &
Gerty. Called on
Howard at the N.Z.
Trawling Co.

9. Thurs.

Wet day in Wellington -
Hamilton was absent.
Miss Gruar came to
the boat supposing
that Rose was aboard.
Left at 6.0'clock.

10. Fri.

Met at Lyttelton by
Rose + Claude. Haynes
turned up later. Got
luggage + menagerie
safely away. Spent
afternoon at Museum,
files of letters and
packets awaiting me.

11. Sat. (11. XI. 11)!!

with Rose called to
see Haynes' birds and
new monkey. Went to
pictures at night.

12. Sun.

Made a cage for the
galahs which I got
for ourselves. Put
canaries into breeding
cage and worked in
the garden - Spent

evening with the
Bridges. Reporters
interviewed me re
my holiday. Saw
Drummond who has
succeeded in getting
promise of £3000 for
his bird book from
the Premier.

13 Mon.

Letter from Arthur
Tait Jr % J. Corboy.
Kihi Kihi Awamutu
Warkato to which I
replied - wrote to &
sent the letter to
his father - Leeds.
wrote monthly report
for Museum Com -
mittee.

14. Tues.

Council meeting of
C. P. I. The Bridges
spent evening with
us -

Times.

A SCIENTIST'S HOLIDAY.

VISIT TO SYDNEY.

Mr E. R. Waite, curator of Canterbury Museum, has returned from a visit to Sydney, where he recently spent a few weeks. He went for a holiday, but, like the holidays of many other scientists who are absorbed in their work, it was of the strenuous type. With the exception of a little fishing and shooting in the country, he spent most of his time in the Australian Museum, in Sydney, where he found a great deal to occupy his attention. For thirteen years before he came to New Zealand he was a member of the staff of that institution, and he was pleased to note that it has shared in the general prosperity enjoyed by the Commonwealth. The outward and visible signs of this are a new wing, which has cost £30,000. The museum, of course, has many different departments, and has a wide field to attend to. It has forty-two members, including twelve attendants,

on its permanent staff, and it pays in salaries nearly £7000 a year. Mr Waite was successful and happy in obtaining a number of new specimens, mostly Australian marsupials and ethnological articles, for the Canterbury Museum, and these will be placed on exhibition in the cases soon.

After an absence from Sydney of over five years, he saw great changes in the city. Many buildings, including some very handsome ones, have been pulled down to enable streets to be widened, and he was told that during the past four years £20,000,000 worth of buildings had been erected. In North Sydney alone, during the past twelve months, houses were erected at the rate of one a day. Traffic, especially on the tramways, has increased enormously. To give more space for pedestrians, verandah posts are being dispensed with. The verandahs are suspended, sometimes with ornamental hangings, from the buildings. The same principle has been observed, wherever possible, with tramway poles, and telephone poles are also disappearing as the wires are being placed underground.

Tramway traffic has increased so much that the noise it makes has interfered to some extent with the public parks. To meet this unforeseen difficulty, band stands are now being made in amphitheatres sunk into the ground. The band is stationed in the centre of an amphitheatre, and the members of the audience are seated in tiers all around. Picture shows are still a popular amusement in the city and the suburbs, where they are patronised by enormous crowds. Many of them are shown in the open air, there being no roofs to the theatres.

Mr Waite found that Australian scientists are taking a deep interest in Dr Mawson's Antarctic expedition. He just missed seeing Dr Mawson, but renewed his acquaintance with Professor David, who, although not actually a member of the expedition, is working ardently to make it a success.

Press.

SYDNEY RE-VISITED.

MR E. R. WAITE'S RETURN.

Mr E. R. Waite, curator of the Canterbury Museum, has just returned from a visit to Sydney, where he had been enjoying a few weeks' holiday. It is rather a distinguishing feature of scientists that they can always combine their studies with their pleasures. Mr Waite spent some little time fishing and shooting in the streams and over the country adjacent to Sydney, but the most of his holiday was spent in the Australian Museum, of the staff of which he was for thirteen years a member. Mr Waite remarked that the Museum had advanced considerably during recent years, and a new wing, costing £30,000, had been erected. The ethnological gallery, now being finished directly under the care of the Curator, who himself was an ethnologist, was amazingly complete, and contained a wonderful and marvellous collection of objects from Australia and the Pacific. The specimens had been stored for many years, and the erection of the new wing made it possible to display them.

The remarkable activity in the building trade in Sydney impressed Mr Waite, as it has other visitors. He was informed that during the past four years £20,000,000 worth of buildings had been erected in Sydney, and during the past twelve months houses had been erected at the rate of one a day in North Sydney. Traffic on the tramways and on the ferry boats had increased enormously, and the boring of tunnels beneath the harbour was still being discussed as an alternative to erecting a bridge. The traffic on the ferry boats was so enormous that the boat boys continually called out "Hurry on, please!" purely by force of habit.

Verandah posts were being dispensed with, in order to give more room for pedestrians. Tramway poles and telephone poles were also disappearing, the telephone wires being placed underground. The prosperity of Sydney and New South Wales was ascribed to various causes. It was claimed by some that the Labour Government were responsible, and by others that purely natural causes produced it.

Australian scientists, said Mr Waite, were taking a deep interest in Dr. Mawson's Antarctic expedition. He just missed meeting Dr. Mawson, but had the pleasure of renewing acquaintance with Professor David, who is working with characteristic energy and enthusiasm to make the expedition a success.

15. Wed.

Letter from Stirling
The prospects are not
cheering. He has had
trouble with his
Board & had resigned
but withdrew when
objectionable procedure
was remedied.
wrote to Eldershaw
in reply to letter

re raising rent of
"Burley" and sent
correspondence to
Hardie & Gorman.

16 Thurs.

wrote to Etheridge
enclosing letter from
Etheridge Received a
second letter from
Arthur Tait saying
he would like to
return home. wrote
to him, also to his
father again.

17

Fri

A violent storm broke
2 and cracked 5
of the Museum
skylights. Developed
photos taken while
in N. S. Wales.

18. Sat.

Took Rose + Claude
to pictures at night

19 Sun.

Rode the "Bat" to
Wainoni. Called on
Haynes. Mr. Asmuss
and the Bridges
to tea.

21 Tues.

Took Rose + Claude
to hear "Huddersfield
Hand-bell Ringers".
They gave a fine
performance.

22 Wed.

Ordered Nos 111 + 196
from Dultz Catalogue.
München. Letter
from Wilfrid Made

frame for fire-screen
of Rose's needlework.

23 Thurs.

Drawing Oreosoma.

Received new agreement
to sign for tenancy
of "Headingley" at
increased rental the
comparative figures
are, &—

"Headingley"

formerly.	60. 0. 0
-----------	----------

monthly.	5. 0. 0.
----------	----------

Now.	68. 18. 0
------	-----------

monthly.	5. 14. 10
----------	-----------

"Burley."

formerly	45. 10. 0
----------	-----------

monthly	3. 15. 10
---------	-----------

Now

monthly

Note.
The following is
written Jan 8th 1911.

Nov 23 (continued)

Later in the day
I developed insistent
Rigor, but went
with Rose & Claude
to the Bridge's at
night. Had to leave
the card table due
to extreme drowsi-
ness & fell asleep
in a chair.

24 Fri.

Did not go to the
Museum & returned
to bed. Rose sent
for Dr Gibson.

25 Sat.

The Dr. came again
& opined that the
trouble was Enteric
(Typhoid) fever but
was not certain -

28. Tues.

The Dr. sent a
trained nurse (E.
Morris) and I have
nothing to write
until

December.

17. When the fever
which had reached
 104° finally left.
Hereafter the tem-
perature was below
normal until the
27th when it was
fitfully regained

at the evening taking
Paragraphs like
these appeared in
the "Times" & "Press"

Mr E. R. Waite, curator of Canterbury Museum, who has suffered from a severe attack of typhoid fever, is now out of danger, and is getting on well towards recovery.

month.

Mr Edgar R. Waite, curator of the Canterbury Museum, who has been seriously ill for several weeks past, is now convalescent, and is in a fair way to recovery.

23. Sat.

wrote a letter to
the "Press", (still in
bed) on the Library-
Museum question,
but decided to put
it as an "interview"

25. Xmas Day.

Had a morsel of
goose & peas, to the
astonishment of
the nurse, though
on the Dr's suggestion.

26. Tues.

Digby came up
in response to a
telephone message
& I gave him the
"interview".

28. Thurs.

The "interview"
published in the
"Press" as over, but
considerably muni-
lated - (My hand
is still very shaky
[Jan 8th] for writing)

PUBLIC LIBRARY QUESTION,

POSITION OF THE MUSEUM.

INTERVIEW WITH THE CURATOR.

A statement bearing on the public library question was made to a "Press" reporter yesterday by Mr Edgar R. Waite, curator of the Canterbury Museum. Mr Waite, who is now recovering from a serious illness, said that he had been virtually cut off from the outside world for the past five weeks, but that quite recently his medical adviser had allowed him to do a limited amount of reading. Taking advantage of this, he had made himself acquainted with the discussion respecting the public library recently printed in the columns of "The Press," the admirable resume of the history of the institution prepared by Mr T. W. Rowe, a member of the Canterbury College Board of Governors, the leader in "The Press," the interview with the Mayor, and, lastly, the letter by Mr H. Wynn Williams.

Mr Waite said it appeared probable that the City Council, undoubtedly the natural and proper custodian of the institution, would be willing to take over control of the Public Library providing a satisfactory arrangement could be made as to the endowments, and this was, of course, the whole crux of the matter.

"I would here," continued Mr Waite, "like to make a little pertinent digression as to the position of the Museum. The museums of Auckland, Canterbury, and Otago are independent institutions deriving their revenue from private or semi-private sources. The Dominion Museum at Wellington is, of course, a Government institution and may be left out of consideration. Both the Otago and Auckland museums benefit largely at the hands of private donors. We have but to recall the munificence of the late Dr. Hocking and others in respect to Otago, while in Auckland when any special object is desired it appears to be merely necessary to announce the fact when the money is at once forthcoming. Let us on the other hand look at Canterbury. Not a voluntary contribution (with one single exception) has been made to the funds of the Museum certainly for many years past. Someone would be certain to remind me of the skeleton of the Okarito whale, but in anticipation I may say that under the peculiar and exceptional circumstances attending the purchase of the skeleton, the bulk of the contributions were by no means voluntary, but were hardly fought for by myself and the small committee which so ably seconded my efforts. We may therefore, I think, leave this question out of the general discussion. The Canterbury Museum is admittedly the largest and most attractive institution of its kind in New Zealand. It is a magnificent asset to the city, and the privileges which it offers have been absolutely free to residents and visitors alike for the past half century, and yet, except during the earlier years of its formation, the public have not contributed one penny to its upkeep. I am of course aware of the origin and source of the endowments but no credit can be taken for the income from these endowments by the present generation.

The connection between the Museum and the Public Library is that both institutions derive their revenue from the same endowments. Should the question be referred to the Supreme Court, and should it be decided that a portion of the endowments be handed over to the City Council it would mean that the income of the Museum would remain approximately as at present. I have repeatedly pointed out that the institution is starved and expansion, except within narrow limits, is impossible. If the City Council would take over the library irrespective of the endowments, the funds of the Museum would be appreciably augmented, and thus the public of to-day would pay at least some of the debt which it undoubtedly owes. In order to place the library on a higher plane it would be necessary for the Council to levy a rate, and the extra amount to be called in consequent on the relinquishment of the endowments would surely be very small and would possibly not be objected to when it was realised that two of the principal educational institutions of the city were benefiting thereby.

"I am quite aware that my suggestion is quite a voluntary one, but I would appeal to the loyalty and patriotism of the people of Canterbury to give the question careful thought before submitting it to the determination of the law courts. Should such an extreme step be necessary, I trust at any rate that the aspect of the question I have advanced may be deemed worthy of discussion in the columns of 'The Press.' "

*has no
legal status*

*7 le/
O/L*

I left my bed for the first time on Dec 30 sitting in a chair for half-an-hour.

The nurse left on Jan. 2nd and the Dr. paid his final visit on Jan 5th.

Rose conducted my pressing correspondence and Haynes made all arrangements for our holidays to be spent at Akaroa.

GEOGRAPHISCHER

April

(Kartenbesprechungen siehe i

Chilton, C.: The Subantarctic Islands of New Zealand. 4^o, 2 Bde., XXXV u. 388 S.; 460 S., mit Abb. u. K. Wellington, N.-Z., 1909.

Dem äußersten südöstlichen Endteile des von dem eurasischen Teil des Kontinentalblocks nach SO sich erstreckenden, Australien und Neuseeland tragenden, reich gegliederten Fortsatzes entragen einige kleine Inseln und Inselgruppen. Mit Ausnahme der am weitesten südwestlich außerhalb derselben gelegenen Macquarieinseln erheben sich alle diese Eilande dicht innerhalb der 1000 Faden-(1800 m) Linie. Zusammen bilden sie einen Bogen, welcher in einer Entfernung von durchschnittlich 800 km die Südinsel von Neuseeland im Osten und Süden umzieht. Diese Inseln (Inselgruppen) sind die Chatham-, Bounty- und Antipodeninseln im Osten zwischen 40 und 50° S, und die Campbell, Auckland- und Macquarieinseln im Süden zwischen 50 und 55° S.

In den letzten Jahren haben mehrere neuseeländische Naturhistoriker diese Inseln besucht und auf denselben Beobachtungen angestellt und Material gesammelt. Die Ergebnisse ihrer eigenen Untersuchungen und die Berichte anderer, denen Teile des gesammelten Materials zur Bearbeitung übergeben wurden, sind in dem vorliegenden, von C. Chilton herausgegebenen Werke veröffentlicht. Die einzelnen Abschnitte des Werkes behandeln die Entdeckungsgeschichte, magnetische Beobachtungen, die Radioaktivität einiger vulkanischer Gesteine, die Meteorologie, die Geologie, die Physiographie, Humus und Humusbildner, eine Anzahl von Tier- und Pflanzengruppen, die Flora im allgemeinen und die biologischen Beziehungen der Inseln zu Neuseeland.

Ich beschränke mich hier darauf, Waites Schilderung einer Exkursion nach dem etwa 400 m hohen Mount Galloway, der höchsten Erhebung der Antipodeninsel, aus der Fülle des Interessanten herauszugreifen und im Auszug wiederzugeben. Mit einigen Begleitern erkletterte er die Strandklippen, durchschritt einen Gürtel von Coprosomagebüsch und erreichte das 120—150 m hohe Tafelland, das den größten Teil der Insel bildet und das hier mit brütenden Albatrossen (*Diomedea exulans* L.) besät war. Die übrigen Begleiter zurücklassend, setzte er mit Prof. Benham den Marsch fort. Das Plateau ist mit isolierten,

aber ziemlich nahe beisammen stehenden Grasbüscheln bedeckt. Auf den abgestorbenen älteren Teilen weiter emporwachsend, haben diese Büschel Höhen bis zu 2 m erreicht. Geht man oben auf den Büscheln, so fällt man alle Augenblicke zwischen denselben herab. Geht man unten, so kommt man, des dichten Beisammenstehens der Büschelstämme wegen, nur schwer durch. Ab und zu wurden Bachbette erreicht. Diese enthielten kein Wasser, waren aber mit einem fast undurchdringlichen, aus großen sparrigen und hartstämmigen Farnkräutern zusammengesetzten Dickicht ausgefüllt. Der Abhang des Berges war leichter zu begehen, aber an vielen Stellen von Rußsturmtauchern (*Puffinus griseus* Gm.) ausgehöhlt. Am Boden dieser Höhlen, von denen einige über 3 m tief waren, lagen übelriechender Schlamm und Vogelknochen. Mehrmals fielen die beiden Wanderer in solche Höhlen hinein. Dazwischen saßen auch hier am Bergeshang überall brütende Albatrosse, die nach ihnen schnappten. Die Albatrosnester sind 30—50 cm hohe, zusammengescharte Hügel mit einer Einsenkung am Scheitel. Auf dem breiten Berggipfel angelangt, hatten Waite und Benham Gelegenheit, die gar nicht scheuen, in nächster Nähe umherfliegenden und -laufenden, und ihre Hochzeits Tänze aufführenden Albatrosse zu beobachten. — Die nach Photographien hergestellten Abbildungen sind schön und instruktiv. *R. v. Lendenfeld.*

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AMS 587/53



