infection. The remainder were used in equal numbers for controls and experiments. They were kept in batches of 10 in Petri dishes (4·5 in. in diameter) lined with damp filter paper. Although the slugs will feed on a variety of vegetable foods, in order to eliminate all possibility of outside infection, they were fed on the foliage cut from wheat grown on moist flannel in the laboratory. The Petri dishes were cleaned, and the filter paper and food were replaced daily.

Active ripe proglottids of *D. proglottina* were obtained from the duodenum immediately after an infected hen was killed. The proglottids were washed rapidly in tap water and then placed on the filter paper in the Petri dishes containing the experimental slugs. The slugs ate the proglottids with avidity and the process could be watched under a binocular dissecting microscope. Some of the slugs were kept at a room temperature of 16° C. and others were placed in the incubator at 24° C. At the former temperature cysticercoids developed in 21–22 days and at the latter in 12–13 days. By killing and examining some of the experimental slugs at varying intervals, the route of infection was established and all stages of the development up to and including the cysticercoids were obtained. At the conclusion of the experiments the control slugs were examined and found to be uninfected.

It does not follow that *Agriolimax agrestis* is the only intermediate host in Great Britain, and further experiments will probably confirm Wetzel's observations that in addition to this form and *Limax flavus*, the young stages of *Arion hortensis*, *Arion circumscriptus*, *Arion intermedius*, and *Cepea nemoralis* may serve as intermediate hosts.

F. J. BROWN.

Molteno Institute,
University of Cambridge.
Jan. 28.

[1] *Z. Bakter. I. Orig.*, **3**, 1888 and **5**; 1889; *Atti Acc. Catania*, **4**; 1892.
[2] *Bull. Soc. Zool. France*; 1892.
[3] *Parasitology*, **8**; 1916.
[4] *Bull. biol. France et Belg.*, Suppl. 2; 1920.
[5] *Vet. J.*; 1928.
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Phytophthora megasperma causing Pink Rot of the Potato

DURING the course of an investigation into the occurrence and distribution of pink rot of the potato in Northern Ireland, a species of *Phytophthora* other than *P. erythroseptica*, the normal cause of the disease in the field, was isolated from tubers involved in an outbreak of the disease at Culnafay, County Antrim. Numerous isolations made between 1928 and 1932 from diseased tubers occurring in the same field at Culnafay have proved to be *P. erythroseptica*, the species referred to having been obtained on one occasion only. The isolation was made in January, 1930. A series of inoculation experiments has shown that this species causes a tuber rot of the potato indistinguishable from that caused by *P. erythroseptica*. The isolation was found to differ from *P. erythroseptica* mainly by the production of a preponderance of paragynous antheridia and in the large size of its oospores. We are grateful to Mr. Ashby of the Imperial Mycological Institute who has identified it as *P. megasperma* Drechsler.

P. megasperma was first recorded by Drechsler in 1931 as causing a crown rot of hollyhocks in the United States[1] and it would appear that this is the first record of its occurrence outside the United States. Although a number of species of *Phytophthora* will cause pink rot of the potato under conditions obtaining in the laboratory yet, in Northern Ireland, no species other than *P. erythroseptica*, to which must now be added *P. megasperma*, has been found as the cause of the disease in the field.

H. CAIRNS.
A. E. MUSKETT.

The Queen's University,
Belfast.
Jan. 17.

[1] Drechsler, C., *J. Washington Acad. Sci.*, **21**, 513–526; 1931.

Snails and Changes in Sea-Level

IN NATURE of April 7, 1923, p. 464, I directed attention to the great changes in sea-level assumed by some geologists to have occurred during Pleistocene times. Reference was made to the small I. de Cima, close to Porto Santo, in the Madeira group. This islet has a very distinct species of snail, in great abundance, and if the postulated changes in sea-level actually occurred, it is hard to understand why the snail did not reach the main island, or, at another time, perhaps perish beneath the waves.

There has recently been published a still more striking example of a snail fauna on a small island, distinct from that on the adjacent larger island. Dr. A. Wetmore and Mr. F. C. Lincoln in 1931 visited Beata Island, which lies about six miles off Beata Point, the southern end of the island of Haiti. Beata Island is connected with Haiti by a submarine bank, on which there is 12–18 ft. of water. It is about four and a half miles long, and four wide. The U.S. Pilot gives an elevation of 330 ft. for Beata, but Wetmore and Lincoln estimated it to be about 75–100 ft. The island is of limestone, and much eroded.

A collection of land snails from Beata Island was submitted to Dr. P. Bartsch, of the U.S. National Museum, with the following astonishing result: *Chondropoma*: two new species, one representing a new subgenus; *Lucidella*: one new species; *Eutrochatella*: two new species; *Ceratodiscus*: one new species; *Cepolis*: two new species and a new subspecies; *Plagioptycha*: one new species; *Thysanophora*: two new species; *Urocoptis*: one new species; *Brachypodella*: one new species; *Macroceramus*: one new species; *Varicella*: one new species.

Thus the whole snail fauna is apparently peculiar to this small island, separated from the main island of Haiti by a channel said to be as shallow as 18 ft. Here is certainly a problem for the geologists.

T. D. A. COCKERELL.

University of Colorado,
Boulder, Colorado.
Jan. 20.

Amplification of the Ionisation Produced by Radioactive Sources

VARIOUS devices have been described for employing thermionic valves to measure small current. In most of these, the necessary sensitivity is only obtained by using very sensitive galvanometers in the anode