

species recorded sparingly from a few localities, but off Redcar it occasionally appears in extraordinary shoals in springtime. Such visitations have occurred previously in the second week of February, 1892, April, 1907, and April 2, 1908. In general the creatures come ashore after a N. or N.E. wind, but on the present occasion a gentle westerly wind had prevailed for a few days. I should be glad to receive information from naturalists or fishermen who may have observed these minute "shrimps" about the same date, on other parts of the coast or in the open sea, so that knowledge may be gained of the full extent and of the provenance of the shoal.

JAMES RITCHIE.

Royal Scottish Museum, Edinburgh.

New Zealand Vegetation.

IN NATURE for April 10 (p. 147), under the title "New Zealand Vegetation," I notice the following sentence:—"The northern rivers and estuaries display a mangrove vegetation—a unique and unexpected occurrence outside of the tropics."

The writer of the article is evidently not aware that mangrove formations are found at intervals all round the coasts of Australia. The species which forms them is *Avicennia officinalis*, L., which occurs in all the Australian States, but not in Tasmania. It reaches its southerly limit in Western Australia in the neighbourhood of Bunbury ($33\frac{1}{2}^{\circ}$ S.), where the trees reach a height of about 12 ft. On the east coast it is most familiar on the shores of the Parramatta River in Sydney Harbour, which is a little further south than Bunbury, but it occurs so far south as Corner Inlet, on the east side of Wilson's Promontory (39° S.). This southernmost point of the Australian continent is one degree further south than any point on the north coast of the North Island of New Zealand.

W. B. ALEXANDER.

The Western Australian Museum and Art Gallery,
Perth, Western Australia, May 10.

I FEAR that in attempting to compress into a few paragraphs a general sketch of the plant communities of New Zealand I inadvertently conveyed the erroneous impression concerning the distribution of the mangrove vegetation in Australasia which Mr. W. B. Alexander has corrected in his interesting note. The sentence which he quotes is perhaps less misleading if read in connection with that immediately preceding it, and containing the statement upon which I wished to lay chief stress in enumerating the main types of New Zealand vegetation—"to find an equal variety a continent extending to the tropics would have to be visited." I was quite aware of the well-known fact that the eastern or Indo-Malayan mangrove flora, well developed on the northern littoral of Australia, extends in an impoverished form along the eastern and western coasts southwards, though it is interesting to note that it actually reaches the most southerly point of the Australian continent. It may be added that Prof. Bews (Annals Natal Museum, ii., 1912, p. 297) has recently described what appears to be the most southerly extension of the mangrove vegetation on the opposite side of the Indian Ocean, in Durban Bay; here, as in the subtropical and warm temperate parts of Australasia, the rich eastern mangrove flora is represented by an interesting though poorly developed outlier consisting of *Avicennia officinalis*, *Bruguiera gymnorhiza*, and *Rhizophora mucronata*.

F. C.

Anthelia.

IN connection with the correspondence in NATURE on the bright light on dew round the shadow of one's head, the accompanying photograph, which shows the

phenomenon on dew on seakale, may be of interest. It was taken here on October 7, 1899, at 8.35 a.m. It shows the shadow of the camera, so that in spite of the irregularity of the leaves the radius of the



bright light is easily measured as nearly 8° . The scale of the photograph is 8.5° to the inch.

T. W. BACKHOUSE.

West Hendon House, Sunderland, June 10.

Antennæ for Wireless Telegraphy.

I WAS interested to see Mr. Campbell Swinton's letter on wireless receiving with his bedstead as an aerial. Many of the more powerful stations are, however, much easier to receive than is generally supposed; for instance, I have been able to read the Eiffel Tower nine o'clock news message with only 12 ft. of No. 18 S.W.G. copper wire stretched across my attic (second floor, about 25 ft. from the ground) using good earth to waterpipes, with usual tuning coils and condensers, bornite-zincite detector, and very sensitive 4000 ohm telephone (H. W. Sullivan), without any relay. Even when the aerial was reduced to 6 ft. of wire the signals were just audible, but very faint.

ARNOLD G. HANSARD.

Limpsfield, Surrey, June 10.

SOME months ago, in endeavouring to reduce the antenna to the smallest possible dimensions, such as by placing a series of wires just over the instruments, I found that by using a bedstead (without wire mattress) signals of "strength 8"—i.e. moderately loud—could easily be obtained from Paris *without the aid of a Brown relay*—a costly instrument, reputed to increase the strength of signals five times. The apparatus used was simply the orthodox loose coupling with crystal detector. The bed used is on the second floor of my house, about 20 ft. from the ground, and the gas-pipe below the same floor served as an earth connection.

Under the same conditions Norddeich is usually readable, and sometimes Poldhu and Nauen. That nearer stations are also heard is obvious.

I should be pleased to give a demonstration of