Careful searching of the green alga *Caulerpa* at various localities in New South Wales during the 1960/61 summer period will, I hope, reveal the living animals of both species, possibly along with other sacoglossans which feed on the same food.

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Northern Limits of *Elminius modestus* in Britain

RECENTLY, Powell[1] reported the occurrence of two specimens of the immigrant barnacle *Elminius modestus* at Keppel Point, Isle of Cumbrae, where the species was reported some four years previously by Connell[2]. This is only the second record of the species north of Loch Ryan, though it has been present in the Loch and farther south for some time[3]. Its presence in very small numbers at scattered points on the south-west coast of Scotland is to be expected, since it has now colonized shores on all sides of the Irish Sea and has been found beyond the North Channel in Loch Foyle[4].

In March 1960 *Elminius* was found sparsely scattered over a wide area in the Gare Loch, Dumbartonshire, north of the Clyde, though no specimens were found in the Clyde estuary itself, nor in the neighbouring Lochs Long and Fyne, nor farther north in Loch Linnhe. It may be significant that there is a naval dockyard in the Gare Loch and shipbreaking yards, as in Loch Ryan. The individuals found in the Gare Loch were mostly small ones which had evidently settled late in 1959, and, though they were seldom seen sufficiently close together to be able to breed, were nevertheless found in numbers at all the piers, jetties and breakwaters which were examined (Fig. 1), the greatest densities occurring towards the head of the Loch. Hydrographic conditions in such a deep and long body of water would be ideal for retaining larvæ liberated by introduced barnacles.

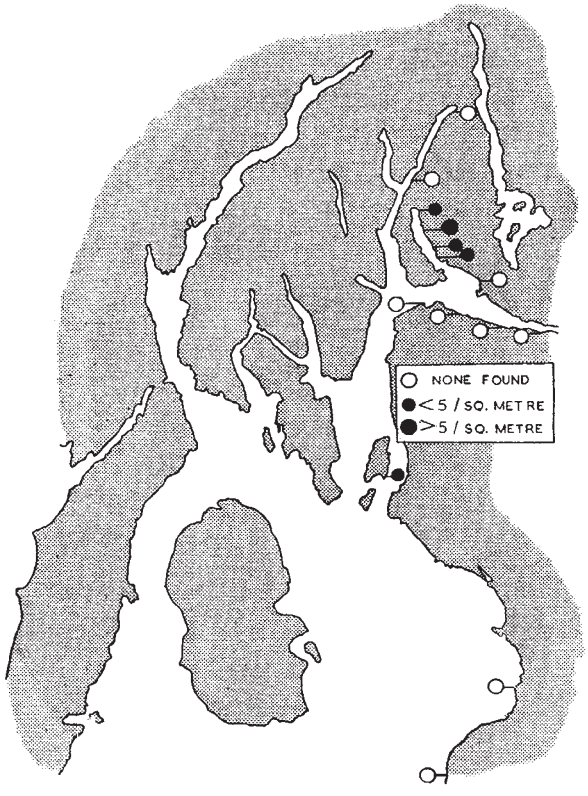

Fig. 1

On the east coast, the Humber has marked the limit of *Elminius modestus* for some years[3]. However, in March 1960 considerable numbers were found to have settled between the Tees and the Humber. On the piers at Saltburn the density reached 20 individuals per square metre. Smaller numbers were found at Scarborough and Bridlington.

The northward spread of the species, both on the west and the east coast, following a period of some five years in which the species had shown little advance, is probably to be ascribed to an increase in the fecundity of the species caused by the exceptionally warm and prolonged summer of 1959.

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Fruit-Setting of Apples using Gibberellic Acid

ATTEMPTS in the past to produce parthenocarpic development of pome fruits with growth substances have had only very limited success[1,2]. Because of a greater natural tendency towards parthenocarpy, experiments with pears have been much more successful than with apples. Luckwill[3], however, recently reported that gibberellic acid sprays caused the initial development of seedless fruitlets on several apple varieties, although with only one, Miller's Seedling, did treated parthenocarpic fruits reach maturity. In experiments at this Division during the 1959–60 season, gibberellic acid, applied as a 1 per cent lanolin paste, has produced mature seedless fruits on four apple varieties—Sturmer, Cox's Orange and two cider varieties, Strawberry Norman and Red Jersey.

Before treatment, petals, stamens and style of flowers on small branches were removed at the pink stage with a sharp blade. Except with Red Jersey at least 80 flowers per treatment were used. Paste was then smeared on the cut surface and around the inside of each receptacle. On Sturmer, additions of 2,4-dichlorophenoxyacetic acid (0·125 per cent) alone or together with kinetin (0·025 per cent) to the gibberellic acid did not appear to enhance the effect of the latter. A single spray of 400 p.p.m. gibberellic acid was as effective as the grease treatment on Strawberry Norman, the only variety on which this method of application was tried.

Subsequent swelling of treated receptacles was rapid and comparable with that of normal seeded fruits. At an early stage the majority of treated flowers appeared to have set. However, many of these fruitlets developed only partially and a heavy drop occurred 5–7 weeks after treatment. The remaining