

NOTES ON THE BIOLOGY OF THE LOCHS OF THE SHIN BASIN.

By JAMES MURRAY.

Collections of plankton were made in eight lochs of the basin. The lochs are mainly characterised by the presence of two northern species of *Diaptomus* (*D. laciniatus* and *D. laticeps*), besides the common *D. gracilis*, and by the very numerous Desmids, many of which are of the western type.

Each of the three species of *Diaptomus* was found in five lochs—*D. gracilis* in Lochs Shin, a' Ghriama, Ailsh, Gorm Loch Mòr, and Fiodhaig; *D. laciniatus* in Lochs Shin, a' Ghriama, Merkland, Ailsh, and an Daimh; *D. laticeps* (or a related species) in Lochs a' Ghriama, Ailsh, an Daimh, Gorm Loch Mòr, and Fiodhaig. All three species occurred together only in two lochs (a' Ghriama and Ailsh), while in all the other lochs, except Merkland and an Lagain, there were two species; in Loch Merkland *D. laciniatus* was the only species seen. *D. laticeps* was identified in Lochs a' Ghriama and Ailsh; in Lochs an Daimh, Gorm Loch Mòr, and Fiodhaig, a species of the same group occurred, but as only females or immature males were seen, it is not certain whether they were *D. laticeps* or the very closely related *D. Wierzejskii*.

Among other Crustacea there is little to note—*Holopedium* was only seen in Lochs Shin and a' Ghriama; *Leptodora* in Lochs Shin, a' Ghriama, and an Daimh; *Sida* in Loch a' Ghriama only; *Diaphanosoma* in nearly all of the lochs. Nearly all the *Daphniæ* of Loch Fiodhaig were males.

Ilyocryptus acutifrons, G. O. Sars, was found in Loch Shin in August, 1903, being previously unrecorded for Great Britain. It was obtained in a shallow bay at the mouth of the Fiodhaig river.

The Desmids of Loch Shin have been fully studied by Messrs. W. and G. S. West.* On the occasion of our visit the very great abundance, of individuals as well as species, was remarkable, exceeding anything that we had observed in other lochs. In Lochs a' Ghriama and Merkland the species were also very numerous, and on the whole the same as in Loch Shin. In Lochs Ailsh, an Daimh, and an Lagain, few Desmids were seen, but all had some of the western species. In Gorm Loch Mòr and Loch Fiodhaig no Desmids were noted.

Pelagic Rotifera were abundant only in Lochs Shin, a' Ghriama, and Ailsh; in Loch Shin the plankton collections also included many littoral species, which must have been driven out by the stormy weather. *Floscularia pelagica*, Rousselet, was in Loch a' Ghriama only. Skeletons of the Heliozoan, *Clathrulina elegans*, were abundant in Lochs Shin and a' Ghriama.

* See *Journ. Linn. Soc., Bot.*, vol. 35, p. 519, 1903.