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The Migratory Trout (*Salmo trutta* L.) in New Zealand.
I—The Introduction of Stocks.

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Abstract

THE status of the trout (*Salmo trutta* L.) in the coastal waters of New Zealand is considered. In addition to importations of brown trout from Tasmania, not less than 6 importations of sea trout ova were made by different bodies or individuals during the first decade of salmonid introduction. Young sea trout were released in four known localities and probably released in several more. Competent observers identified sea trout from 1874 to the end of the century. It is concluded that breeding populations of sea trout were established in the south-east of the South Island of New Zealand.

INTRODUCTION

THE presence of trout (*Salmo trutta* L.) in the coastal waters of New Zealand was noted shortly after the introduction of salmonids to the country (Arthur, 1878), and such populations still exist (Hobbs, 1948; Stokell, 1955). The origin and status of these trout is not, however, clear, and the many statements on this problem are not supported by any substantial body of evidence.

The views that have been expressed fall broadly into two classes. On the one hand are those whose attention was drawn to the occurrence of brown trout in coastal waters, and Arthur (1884) was among the first to record this fact. In commenting on the brown trout in Otago Harbour (Arthur, 1884, p. 499) he notes a tendency to resemble sea trout in certain details of colouration. Day (1887, p. 7, 145, 184) refers to Arthur's papers and suggests that the brown trout in question are in the process of assuming the appearance and habits of sea trout. A number of workers in Europe followed this view, but it appears that they are quoting Day rather than Arthur. Calderwood (1908, p. 6) states that brown trout taken from England to New Zealand quickly acquired a migratory habit. Regan (1911, p. 56) states that river trout exported to New Zealand gave rise to an anadromous race. Lamond (1916, p. 24) quotes Calderwood, and agrees with Regan's statement. This view is taken farthest by Vladykov (1934) who quotes Day (1887) and states:

"For example European brown trout, landlocked forms of *Salmo trutta*, transported to New Zealand change their habits and transform into typical anadromous *S. trutta*."