TRANSACTIONS
OF THE
ROYAL SOCIETY OF NEW ZEALAND

ZOOLOGY

VOL. 10 NO. 21 SEPTEMBER 5, 1968.

A New Cidarid Echinoid from Northern New Zealand

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[*Received by the Editor, November 14, 1967.*]

Abstract

A NEW cidarid echinoid, *Goniocidaris corona*, is described from specimens collected between 14 and 132m off the north-eastern coast of New Zealand. The new species is the fourth member of the subgenus *Goniocidaris* s.s., which is characterised by lacking basal discs on the radioles. It is closely related to another northern New Zealand species, *G. magi* Pawson, and an Australian species, *G. tubaria* (Lamarck). *G. corona* is brood-protecting, the young stages probably being carried on the aboral side. A similar brood-protecting habit is first recorded here for *G.* (*Aspidocidaris*) *parasol* Fell, a southern New Zealand species.

INTRODUCTION

THE cidaroid genus *Goniocidaris* is complex and large: approximately 18 living species are known, and these fall into five subgenera. The genus ranges the Indo–West Pacific oceans from Japan to New Zealand, with the Indonesian region as the probable centre of distribution. Of five species hitherto known from Australasian waters, three are typical of the subgenus *Goniocidaris* s.s.: *G. tubaria* (Lamarck), *G. magi* Pawson, and *G. umbraculum* Hutton; the remaining two species, *G. australiae* Mortensen and *G. parasol* Fell, fall in the subgenus *Aspidocidaris*. *G. magi*, *G. umbraculum*, and *G. parasol* are apparently restricted to New Zealand waters.

Three living specimens of a new species of *Goniocidaris* s.s. were recently discovered by skin divers in shallow water near Cape Brett and the Poor Knights Islands, New Zealand. This species, possessing thorny radioles without basal discs, which are typical of the subgenus, is closely related to *G. magi* and the Australian species *G. tubaria*. Its discovery lends support to Fell's (1954) observation that most New Zealand cidaroids are endemic.

Order CIDAROIDA Claus, 1880

Family CIDARIDAE Gray, 1825

Subfamily GONIOCIDARINAE Mortensen, 1928

Goniocidaris Desor, 1846

Published by the Royal Society of New Zealand, c/o Victoria University of Wellington, P.O. Box 196, Wellington.