

A Review of the Parrotfishes (Family Scaridae) of the Great Barrier Reef of Australia with Description of a New Species

J. HOWARD CHOAT^a AND JOHN E. RANDALL^b

^aDepartment of Zoology, University of Auckland, PB Auckland, New Zealand*

^bBishop Museum, Box 19000-A, Honolulu, Hawaii 96817, USA.

ABSTRACT. The family Scaridae is represented on the tropical and subtropical coasts of eastern Australia by 25 previously described species. Three species belong in the subfamily Sparisomatinae: *Leptoscarus vaigiensis* (Quoy & Gaimard); *Calotomus carolinus* (Valenciennes); *Calotomus spinidens* (Quoy & Gaimard). The remainder are included in the subfamily Scarinae: *Bolbometopon muricatum* (Valenciennes); *Cetoscarus bicolor* (Rüppell); *Hipposcarus longiceps* (Valenciennes); *Scarus altipinnis* (Steindachner); *Scarus bleekeri* (de Beaufort); *Scarus dimidiatus* Bleeker; *Scarus flavipectoralis* Schultz; *Scarus forsteni* (Bleeker); *Scarus frenatus* Lacepède; *Scarus frontalis* Valenciennes; *Scarus ghobban* Forsskål; *Scarus gibbus* Rüppell; *Scarus globiceps* Valenciennes; *Scarus longipinnis* Randall & Choat; *Scarus niger* Forsskål; *Scarus oviceps* Valenciennes; *Scarus psittacus* Forsskål; *Scarus pyrrhurus* (Jordan & Seale); *Scarus rivulatus* Valenciennes; *Scarus rubroviolaceus* Bleeker; *Scarus schlegeli* (Bleeker); *Scarus sordidus* Forsskål; *Scarus spinus* Kner. The scarid from Australian waters previously misidentified as *Scarus lunula* (a synonym of *Scarus festivus* Valenciennes) represents an undescribed species *Scarus chameleon*, described herein. *Scarus chameleon* has a distribution that includes the western and southern Pacific. It is similar to *S. festivus* but differs in patterns of head and body colouration in the terminal phase, and in the head profile. All but three species listed above are most commonly encountered on the coral reefs of the Great Barrier Reef and the adjacent coral sea. The exceptions are the sparisomatine species *Leptoscarus vaigiensis* and *Calotomus spinidens*, and the scarinine species *Scarus ghobban*. The former two species are often associated with seagrass beds in coastal areas, while *Scarus ghobban* frequents a variety of non-reef habitats. Many of the species listed extend into northern and western Australian waters. Additional collecting is required to establish the limits and identities of the entire Australian scarid fauna. Colour photographs of fresh specimens illustrating the different colour phases of all 27 species are provided. In addition, underwater colour photographs of most species are provided with an emphasis on those which show confusing patterns of short term variation in the initial colour phase. Illustrations of the juvenile phase are provided for some species.

CHOAT, J.H. & J.E. RANDALL, 1986. A review of the parrotfishes (Family Scaridae) of the Great Barrier Reef of Australia, with description of a new species. Records of the Australian Museum 38(4): 175-239.

CONTENTS

Abstract	175
Introduction	176
Materials and Methods	177
Historical Review and Nomenclature of Australian Species	179
Zoogeography and Distribution	184
Colour Phases and Reproduction	188
Key to the Scarids of the Great Barrier Reef	189

*Present Address: Department of Marine Biology, James Cook University, Townsville, 4811, Australia