



Taxonomic re-appraisal of zooxanthellate Scleractinian Corals in the Maldivian Archipelago

MICHEL PICHON¹ & FRANCESCA BENZONI^{1,2}

¹Laboratoire des Ecosystèmes aquatiques tropicaux & méditerranéens, Ecole Pratique des Hautes Etudes. Université de Perpignan, 66860 Perpignan Cedex, France. E-mail: pichon@univ-perp.fr

²Dipartimento di Biotecnologie e Bioscienze, Università degli Studi di Milano-Bicocca, Piazza della Scienza, 2, 20126 Milano, Italy. E-mail: francesca.benzoni@unimib.it

Abstract

A census of scleractinian species was carried out in 2002 and 2003 in the atolls of South Male, Felidhu, Wataru and Ari, in the central Maldives. Thirty four stations were surveyed by scuba diving between the depths of 0 and 50m. One hundred and eighty zooxanthellate coral species belonging to 51 genera were recorded, of which 17 species belonging to 14 genera are new records for the Maldives. A complete list of zooxanthellate scleractinian species including our own results as well as documented records published by previous authors is given. This list includes 248 species belonging to 57 genera. The taxonomic status of a number of species of doubtful validity cited by previous authors is discussed. The need for additional sampling throughout the entire Maldivian Archipelago and for a re-examination of Gardiner's material is stressed.

Key words: Cnidaria, Scleractinia, taxonomy, Indian Ocean, Maldives

Introduction

An historical account of corals and coral reef studies in the Maldives is given by Pillai & Scheer (1976), in their report of the stony corals collected in 1957 and 1958 during the "Xarifa" expedition (Hass, 1961). Pillai & Scheer's work arises from the last major coral collecting effort in the Maldives, and since then only Sheppard (1987) in his compilation of scleractinian species in various areas of the Indian Ocean attempted to provide a comprehensive account of the coral fauna of the Maldives.

Over the last few years, regular field trips to the Maldives have been organized, using the diving vessels made available by the Albatros Top Boat Company, and this provided the authors with the opportunity to carry out in 2002 and 2003 observations on the coral fauna, and to undertake a census of coral species, following the 1998 bleaching event (Bianchi *et al.*, 2003). In this paper, we present an up to date list of zooxanthellate corals recorded in the Maldives. This list is largely based on our own observations and records. For the sake of completeness, we have however taken into account the results of earlier taxonomic studies, including Gardiner's basic treatment (Gardiner 1904, 1905, 1909), as well as the species lists published by Wells & Spencer-Davies (1966), Pillai (1972), Pillai & Scheer (1976) and Sheppard, in his 1987 compilation. Species nomenclature, as published in the above mentioned papers, has been revised in the light of well established modern synonymy resulting from recent taxonomic revisions or monographs, as follows: *Acropora*: Wallace 1999; *Astreopora*: Lamberts 1982; *Montipora*: Veron & Wallace 1984; *Leptoseris*: Dinesen 1980; Fungiidae: Hoeksema 1990; Faviidae: Veron, Pichon & Wijnsman-Best 1977; other families or genera: Veron & Pichon 1976, 1980, 1982.