

## NOTE ON BIOLOGICAL CHARACTERISTICS AND RESOURCES OF THE SCALLOP ( *CHLAMYS NOBILIS* ) IN THE COASTAL AREAS OF BINH THUAN PROVINCE

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### ABSTRACT

This paper has emphasis on data from 1985-86. The data have historical value because the scallop resource in recent time has been overexploited with severe consequences for the natural stocks. Data demonstrate that a rich resource of scallop (*Chlamys nobilis*) used to be widely distributed in Binh Thuan coastal area. *C. nobilis* could be exploited annually from August to October when scallops were over one year old and had a shell length of 6.5-7.6 cm. Exploited production varied annually but the potential production should be approximately 15,000 tons. Main landings came from four places within an area of about 100 km<sup>2</sup>. The paper summarises ecological information available on *C. nobilis*.

### INTRODUCTION

We use the name *Chlamys nobilis* Reeve, 1852 for the present scallop but taxonomists still discuss whether the name *Chlamys* (*Mimachlamys*) *crassicostata* (Sowerby II, 1842) should be more appropriate for this species.

*C. nobilis* has a high economic value and is an essential export item from Binh Thuan province. However, the yield of *C. nobilis* varies much from year to year without clear reasons. It has been suggested that overfishing and poor management of the stocks are the main reasons, but variations due to fluctuating environmental factors, influencing the recruitment, may also play a role. The objectives of this study are to show the situation as it used to be when *C.*

*nobilis* was a common but not fully exploited resource in the Binh Thuan coastal area. In addition to stock estimates we investigated selected ecological parameters.

### MATERIALS AND METHODS

Following the "Norms of synthetic survey in inshore areas" QPVN-79, we carried out two survey trips on the FAO-91 ship and FAO-93 ship (the first time in December 1985 and the second in April 1986). We surveyed a total 45 places from Phan Rang to Ham Tan. A biological dredge (size of frame: 60 x 25 cm) was used to sample *C. nobilis* at selected survey stations, especially from Ca Na to Phan Thiet (Figure 1).

Weight of the ovary was compared to total weight of the soft body and the weight of the ovary calculated as a percentage.

### RESULTS AND DISCUSSION

#### *Size of C. nobilis:*

Figure 2 shows that the average size of *C. nobilis* was 3.9 cm (January), 5.5 cm (April), 7.4 cm (September and October) in the first year and 8.5-9.4 cm at the beginning of next year. The analysis of length-size distributions indicated that the exploited age of *C. nobilis* was mainly scallops in the second year (1<sup>+</sup>).

#### *Reproduction*

The weight of ovaries were rather constant (range 7.4-7.5 % of total body weight). We separated immature eggs from mature eggs under the microscope. Immature eggs were