# OCCURRENCE OF *CORIS JULIS* (LINNAEUS, 1758) LARVAE IN THE SOUTHERN TUSCAN ARCHIPELAGO

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## INTRODUCTION

The rainbow wrasse, *Coris julis* (Labridae), is the most common and abundant wrasse in the Mediterranean, especially in its western basin. The species lives on *Posidonia* beds as well as rocky and mixed bottoms, from few meters to 120-150 m depth, but it is more frequent in waters shallower than 50 m (1). It is a by-catch of the inshore trawl and of trap and angling fisheries. Some biological aspects of *C. Julis* have not yet deeply investigated, probably because of the lack of commercial value of the species. The aim of this study was to give some information on the abundance, distribution and size structure of *C. julis* larvae collected in the southern Tuscan Archipelago.

**Figure 1** – The Bongo net used during the samplings

## MATERIAL AND METHODS

In the southern Tuscan Archipelago, northern Tyrrhenian Sea, three ichthyoplankton cruises were carried out in March 1999 and March and June 2000 (2). During each cruise, a minimum of 60 stations were occupied, collecting a total of 210 samples. Larvae were sampled by means of oblique hauls, from near the bottom to the surface. A Bongo net with 60 cm mouth diameter and 500 μm mesh size was used (Fig. 1). Sampling methodology followed standard procedures (3). Larvae of *C. julis* were identified according to morphological, morphometric and pigmentation features (4). In addition, the standard length (SL, to the nearest 0.1 mm) was measured for each specimen. Larval abundance was standardised to the volume of filtered water at each station and was expressed as number of larvae/10 m² of sea surface (3).

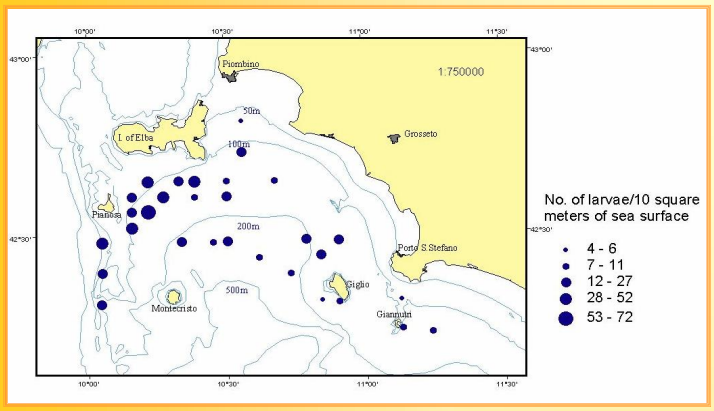


**Figure 2** – Distribution and abundance of *C. julis* larvae, expressed as number/10 m² of sea surface, estimated for the ichthyoplankton survey of June 2000

## RESULTS AND DISCUSSION

In the ichthyoplankton survey carried out in June 2000, 113 larvae of *C. julis* were collected, whereas during the cruises of March 1999 and March 2000 no *C. julis* larvae were sampled. This is in agreement with existing knowledge of the reproductive period of the species which occurs in late spring-early summer (5).

*C. Julis* larvae presented a wide spatial distribution (Fig. 2). The majority of stations at which they were found were localized between 50 and 200 m, in accordance with the ecological characteristics of the adults. The presence of larvae at stations deeper than 200 m could be related to advection by sea currents in the study area (6).

The maximum abundance of *C. julis* (72 larvae/10 m²) was recorded below the Island of Elba, near the Island of Pianosa; the minimum abundance (4 larvae/10 m²) was found at stations located near the Islands of Giglio and Giannutri (Fig. 2).

The size of the larvae ranged from 2.04 to 6.56 mm SL (Fig. 3). Most specimens (about 76%) were between 2.5 and 4 mm SL, with a mode at 3.5 mm SL.

**Total number of larvae = 113**

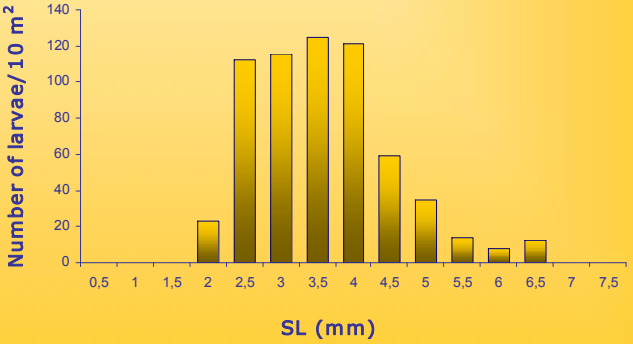


**Figure 3** – Size frequency distribution of *C. julis* larvae collected during the ichthyoplankton survey of June 2000

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