

## **DIVING BEHAVIOUR AND REACTIONS TO TAGGING OF LONG-FINNED PILOT WHALES IN THE CENTRAL MEDITERRANEAN SEA**

Airoldi, S. (1), D. Fasano (2), N. Gavazzi (3), A. Miragliuolo (4), B. Mussi (5), M. Mariani (6).

(1,2,3) Tethys Research Institute, viale G. B. Gadio 2, 20121 Milano, Italy

(4,5) StudioMare, via D'Abundo 82, 80075 Forio d'Ischia (Napoli), Italy

(6) Acquario e Civica Stazione Idrobiologica, viale G. B. Gadio 2, 20121 Milano, Italy

The diving behaviour of long-finned pilot whales (*Globicephala melas*) in the Ligurian and Tyrrhenian Sea was studied by means of suction-cup-attached time-depth recorder/VHF radio tags. Reactions to tagging attempts were also recorded. Four individuals were successfully tagged out of five tagging attempts made during three pilot whale sightings, totalling 270 min of dive data. The three whales tagged in deep Ligurian Sea waters (> 2000 m) performed short (<3 min) and shallow dives (0-16 m) during the day and about three hours before sunset started long (mean = 14 min 6 sec, range = 13 min 50 sec – 15 min 50 sec, SD = 47.3) and deep dives (mean depth = 800 m), presumably concurrently with the diel vertical upward migration of the deep scattering layer. Maximum recorded depth was 824 m (accuracy +/- 3%), the deepest dive documented for this species so far. The whale tagged in the Tyrrhenian Sea spent the entire tracking period (151 min) in the upper 16 m of the water column. The reactions of three whales to tag deployment were generally of low intensity but relatively long lasting. However, the sub-adult male tagged in the Tyrrhenian Sea showed a prolonged and intense reaction. In this case the presence of the tag was presumed to affect diving data. In three cases individual group members attempted to detach the tag by rubbing themselves against the body of the tagged individual, and once they succeeded.