Abundance and distribution of the Common dolphin (*Delphinus delphis*) in the north of the Iberian Peninsula.

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Common dolphins (*Delphinus delphis*) are one of the most abundant species of small cetacean in Northeast Atlantic Ocean and the most abundant in Atlantic shelf waters of the Iberian Peninsula. However, the abundance, distribution and population trends in the recent years of this species are poorly known, but such information is needed to develop population dynamic models. Thus far, the only absolute abundance estimate in the shelf Atlantic waters of the Iberian Peninsula was obtained in 2005 during the SCANS-II survey. Along the north and northwest coasts of the Iberian Peninsula, the Spanish Institute of Oceanography has carried out annual acoustic surveys to estimate pelagic fish biomass for the last two decades. Since 2007, an observer program for top predators has been integrated into these surveys, collecting sightings on cetaceans, seabirds and other species using line-transect methodology. Common dolphin sightings from 2007 to 2014 were analyzed with Distance software to estimate relative population size. Because attraction to the vessel could inflate population estimates, common dolphin abundance was estimated using a detection function only from sightings where no attraction were recorded and also using Bayesian methods to combine previous data on attraction collected during SCANS-II with data collected from the acoustic fish surveys. Dolphin density estimated with both methods was < 0.3 dolphins/Km^2, which is similar to the density estimated by SCANS-II. The Bayesian framework allows us to work with the scarcity and uncertainty of the data, particularly when obtaining annual estimates. Because cetacean sightings were collected during fish acoustic surveys, pelagic fish abundance (e.g. Sardine and Blue whiting), obtained concurrently to the sightings, can be used, along with other environmental variables, to model dolphin habitat and to predict dolphin abundance and distribution.