AD-07. Distribution, abundance, diet, length and condition of bottlenose dolphins in Galicia: patterns, trends and relationships with environmental variation

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In Galicia, NW Spain, strandings monitoring and sighting surveys have provided a variety of information about bottlenose dolphins (*Tursiops truncatus*) over the last 35 years, where there is a coastal population (resident in the Rías) and also individuals from an oceanic population. The relationships between aspects of bottlenose dolphin population status and ecology (spatial, seasonal, and year-to-year variation in occurrence and local abundance of live and dead individuals) and environmental variables (chlorophyll-a concentration and sea surface temperature) were analysed. We also examined the relationships between bottlenose dolphin size (body length), body condition (blubber thickness) and diet (numbers of European hake and blue whiting eaten). Statistical analysis was based on generalised additive models (GAMs). Only stranding-based data on bottlenose dolphins occurrence, size, body condition and diet spanned the entire study period, but no clear long-term trends were identified. Results from stranding data showed that the average body length of bottlenose dolphins varied seasonally, with smaller individuals appearing between June and August (presumably reflecting the calving season), and geographically, with larger individuals being found in southern latitudes. A higher amount of blue whiting and European hake was found in the diet of larger bottlenose dolphin individuals. Local abundance of bottlenose dolphins was higher in winter, but also in the warmest areas. This study illustrates the value of long-term monitoring to provide insights into population status and ecology which can inform conservation management.