Abundance of cetaceans in the central part of Croatian Adriatic Sea by photo-identification and aerial survey

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Bottlenose dolphin (*Tursiops truncatus*) is the only resident cetacean species of the Adriatic Sea. Previous studies indicate anthropogenic influence on habitat use in the Central Adriatic Sea, while systemic monitoring of bottlenose dolphin abundance in this area is lacking. In Šibenik-Knin county, which lies in the central part of Croatian Adriatic Sea, we estimated the number, defined the abundance and distribution of bottlenose dolphins. The study area covered 2680 km², i.e. 76 km in length and 41 km in width, and included Kornati National Park. During 2010 and 2011 boat surveys were conducted and dolphin schools photographed in order to photoidentify present animals. The number of animals was estimated by aerial survey carried out in 2010 during one day at 200 m height with a Cessna 172 airplane. On this occasion 41% of the study area was covered. Five bottlenose dolphin groups were observed with an average school size of 2-4 animals. The estimated number of bottlenose dolphins in the study area was 44. All sightings were registered in the data base available at http://crodolphin.vef.hr. During boat surveys 42 bottlenose dolphin groups were encountered. They consisted of 2 to 21 specimens. A group of striped dolphins (11 individuals) was encountered at one occasion. During our study 95 bottlenose dolphins were photoidentified. In addition to previous indications that marine traffic influences the abundance of bottlenose dolphins in the Central Adriatic Sea, we observed that fish breeding sites attract bottlenose dolphins and influence their spatio-temporal distribution.
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