

N11 WINTER OBSERVATIONS OF THE BOTTLENOSE DOLPHIN (*TURSIOPS TRUNCATUS*) IN THE BLACK SEA NEAR-COASTAL WATERS OF THE CRIMEAN PENINSULA

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The short of information about the distribution of the Bottlenose dolphin (*Tursiops truncatus*) on the Crimean Peninsula at winter period defines the importance of this subject. Our research covers two winter periods: 2006-2008. The pedestrian routes lied on the most area of the Black Sea coast of the Crimea (from the Tarkhankut Cape on the western extremity of the peninsula to the Kerch region on its eastern extremity, Kerch Strait inc.). Also the local inhabitants were interviewed. During 35 observational days 52 sightings of the Bottlenose dolphin were documented basically at 0,05-2 km from the shore. In the near coastal zone their typical behavior was traveling and foraging. The most of sightings (more than 60%) took place between Sevastopol and Alushta areas (chiefly near Sevastopol and its adjoining territories). On the length of the whole routes we observed the dolphins frequently between the Alushta and Theodosia, near the Tarkhankut Cape, between Okuniovka and Shtormovoye villages. It was registered regular foraging of this species in the salt water Donuzlav Lake. Few sightings took place near Eupatoria and the Calamita Gulf. We didn't meet any representatives of this species near the Crimean coast of the Kerch Strait and Gulf of Theodosia. The groups numbered 2-10 (3,7) individuals (44 cases). In 8 cases we observed the collective foraging of several groups (12-65 individuals), mostly in the region of Sevastopol. During the whole winter season the local inhabitants were reporting about the boat observations of dozens dolphins of this species not far from the sea shore (between Yalta and Sevastopol). The high concentration of the Bottlenose dolphin in the near coastal waters of the South and South-West Crimea was typical for winter season. This conclusion agrees with the interviews data.

N12 PRELIMINARY ANALYSIS OF THE SOCIAL STRUCTURE OF SHORT-BEAKED COMMON DOLPHIN (*DELPHINUS DELPHIS*) IN THE TYRRHENIAN SEA, ITALY

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The social structure of a population - usually measured through interactions or associations of individuals - plays a key role in many aspects of its ecology and

biology. The social organization of the short-beaked common dolphin (*Delphinus delphis*) in the Mediterranean Sea is largely unknown due to the rarity of the species. Our purpose was to identify and quantify the re-sightings of individuals and associations formed among them to provide insights into the social organization of common dolphin around Ischia Island (Italy). In this study, the "half-weight index" (HWI) was used to describe the association patterns. We conducted photographic-identification surveys in the June-October period, 2003-2008, identifying a total number of 91 dolphins in 17 sightings. Many of these animals were re-sighted in 2 or more occasions, indicating a high level of site fidelity for at least part of the population. After frequency of occurrence of individuals in focal schools were taken into consideration (animals recaptured at least 3 times), 38 dolphins were retained for association analysis. Overall, the community showed a highly stable association patterns, with a mean HWI>0.5. We also identified dyads having preferred associations (HWI increased of 30% than the mean HWI), discovering several individuals (females in more than 50% of the occasions) with five-years-lasting associations. In this population, pattern and level of association among females in different reproductive states (females from late pregnancy to the first year of their calves' life or females from early pregnancy to their calves' newborn period, females with older calves or without calves) seemed to be very strong. We suggest that several selective pressures, including ecological features of the area (i.e. localization of food resources) as well as eto-ecological constrains (i.e. the overlap with striped dolphin *Stenella coeruleoalba* in habitat use and distribution), may be of importance in determining such associations.

N13 RESEARCH OF A GROUP STRUCTURE OF THE SOLOVETSKY (WHITE SEA) LOCAL HERD OF BELUGAS (*DELPHINAPTERUS LEUCAS*): THE MODEL OF A POPULATION

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The research of the animals' population structures allows to estimate its place and a role in the ecosystem. For finding-out the demographic status of the local herd of belugas, in 1997-2005 there were realized a visual supervision in the reproductive gathering (RG) near Solovetsky island. It was registered the behavior of animals, the dynamic of their quantity and the age-sexual structure of the herd. For the analysis of Solovetsky herd like a population model (on Colly) as a criterion served the general number of belugas, the number of adult females, the number of subadultus individuals and number of juvenalis. The total number was in 1997 – 88, in 1998 – 84, in 1999 – 98, in 2000 – 111, in 2001 – 69, in 2002 – 92, in 2003 – 61, in 2004 – 78 and in 2005 – 84 belugas. The survival rate $L(x_n)$ equaled in the same years accordingly 1,0, 0,9545, 1,1140, 1,261, 0,7840, 1,0454, 0,6932, 0,8864 and 0,9545.