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Individual movements between local coastal populations of bottlenose dolphins (*Tursiops truncatus*) in the northern and eastern Black Sea

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*The Black Sea subspecies of the bottlenose dolphin (*Tursiops truncatus ponticus*) is threatened and has a small range. Its population structure is little known: it possibly includes a few local coastal populations. We assessed connectivity between coastal groupings in six localities along 800 km of the coastline based on records of photo-identified animals between 2004 and 2014. Abundance of these groupings, as estimated, ranged between 76 and 174 individually distinctive dolphins. In total, there were 350 identified individuals, of which 91 (26%) were resighted within the same areas. However, only three cases of individual movements between local coastal populations were recorded at the distances between 135 and 325 km. Therefore, despite the absence of physical barriers, the coastal Black Sea population is fragmented into numerous resident or locally migrating groupings with site fidelity. These local populations are loosely connected to each other with rare movements between them. This fragmentation can be a factor contributing to short-term fluctuations in abundance of Black Sea bottlenose dolphins and their decline in some localities, despite the potentially high population growth rate.*

Keywords: bottlenose dolphin, population structure, mark-recapture study, connectivity, fragmented range

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