

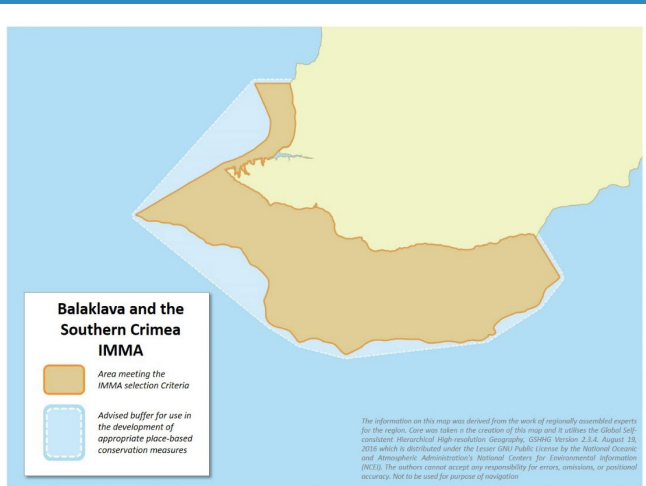
Balaklava and the Southern Crimea IMMA

Description

The IMMA is located in coastal and open shelf waters between the Ulukol (Lukull) Cape and Ai-Todor Cape in the northern Black Sea, and includes water depths up to 200 m. The shelf slope's proximity to the shoreline distinguishes the Balaklava area and the adjoining waters of the northern Black Sea. The biophysical characteristics of this area support high diversity and abundance of fish species which are important year-round prey for all three species of Black Sea cetacean (Drozdov, 2011). The combination of geographical and ecological features are favourable for large aggregations of cetaceans, especially bottlenose dolphins. Bottlenose and common dolphins are permanently present in the area, with the greatest density from April to June and in September (Birkun, 2003; Gladilina, 2018). Harbour porpoises are also present year-round. Their vulnerability to bycatch, particularly during their reproductive season, means that the area needs special protection (BLASDOL, 1999; Gol'din, 2004; Birkun, 2006; Birkun and Krivokhizhin, 2011). The IMMA includes the Ecologically or Biologically Significant Marine Area Balaklava and the Cetacean Critical Habitat area identified by ACCOBAMS.

Criterion A: Species or Population Vulnerability

Balaklava and southern Crimean waters constitute important habitat for the three threatened Black Sea cetacean subspecies, the endangered harbour porpoise (*Phocoena phocoena relict*) and bottlenose dolphin (*Tursiops truncatus ponticus*) and the vulnerable common dolphin (*Delphinus delphis ponticus*) (Birkun, 2002; Mikhalev, 2005a,b, 2008; Birkun and Krivokhizhin, 2011; Gol'din et al., in press; Öztürk et al., in press; Tonay et al., in press).



Area Size

1,913 km²

Qualifying Species and Criteria

Black Sea bottlenose dolphin –

Tursiops truncatus ponticus

Criteria A, B2, C1, C2

Marine Mammal Diversity

Tursiops truncatus ponticus, *Phocoena phocoena relict*, *Delphinus delphis ponticus*

Summary

The Balaklava and the Southern Crimea IMMA encompasses coastal waters between the Ulukol (Lukull) Cape and Ai-Todor Cape in the northern Black Sea, and includes waters at depths up to 200 m. Three Black Sea cetacean species inhabit the IMMA: common dolphin (*Delphinus delphis ponticus*), harbour porpoise (*Phocoena phocoena relict*) and bottlenose dolphin (*Tursiops truncatus ponticus*). The IMMA provides important habitat for the local coastal population of bottlenose dolphins, which consists of several hundred individuals. It was identified as an important cetacean habitat by Birkun (2006) and adopted as Cetacean Critical Habitat by ACCOBAMS. The IMMA also includes the Biologically Significant Marine Area Balaklava.

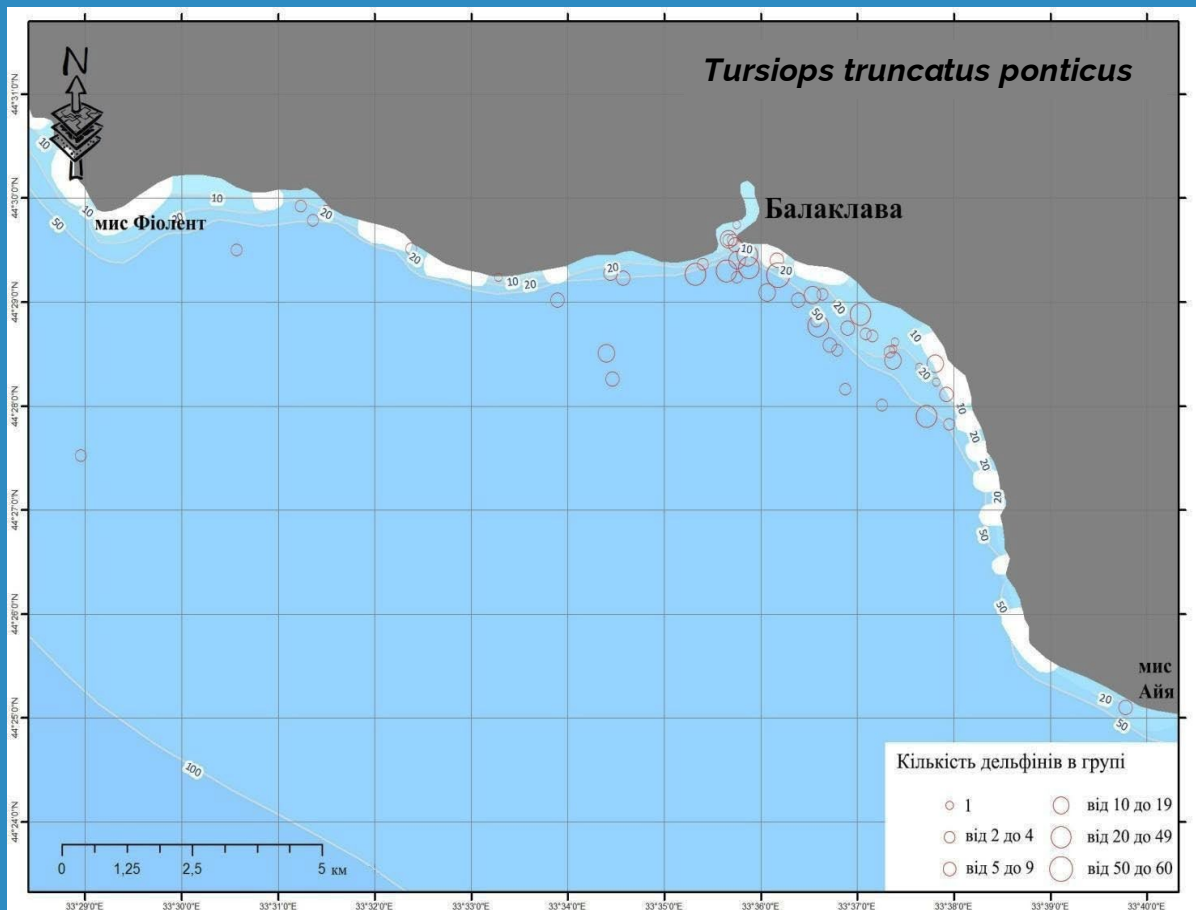


Figure 1: Black Sea bottlenose dolphin (*Tursiops truncatus ponticus*) sightings in the Balaklava region, 2011-2014 (Gladilina, 2018).

Criterion B: Distribution and Abundance

Sub-criterion B2: Aggregations

A local coastal population of several hundred bottlenose dolphins has been estimated from vessel-based photo-identification surveys conducted between Foros Cape and Sarych Cape from 2012-2014 (Gladilina et al., 2018). The longest time period between re-sighting of the same individuals in the area was 10 years (Gladilina, pers. Comm.).

According to the results of research by Birkun and colleagues in the 1990s and early 2000s and by Gladilina in the 2010s, large aggregations of bottlenose dolphins have been observed in the area with maximum observed group sizes up to 60-150 dolphins in spring (Gladilina, 2018; Gladilina, personal communication) and up to 150-200 dolphins in autumn (42% of groups include at least 40 dolphins) (Birkun, 2003).

Criterion C: Key Life Cycle Activities

Sub-criterion C1: Reproductive Areas

This IMMA is important for bottlenose dolphins with calves. Around 50% of sightings include groups with calves, and 21% include neonates (Gladilina, 2018). Birkun (2006b), based on direct observations over several years, stated the hypothesis that the Balaklava area might be the most important breeding place for bottlenose dolphins in the entire Black Sea, facilitating mixing between the different Black Sea local populations.

Criterion C: Key Life Cycle Activities

Sub-criterion C2: Feeding Areas

This IMMA has a high concentration of important prey fish for bottlenose dolphins, such as mullet, horse mackerel, whiting, garfish, red mullet and anchovy (Drodzov, 2011; Kuzminova, 2013). The main type of

behaviour recorded by bottlenose dolphins observed in the area is foraging with feeding aggregations containing as many as 60-150 animals (Gladilina, 2018; Gladilina, pers. comm.).

Supporting Information

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Figure 2: A Black Sea bottlenose dolphin (*Tursiops truncatus ponticus*) breaking the surface. Photo: Elena Gladilina

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Acknowledgements

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