The most frequently injured body parts and organs during dolphin-fisheries interactions in the Croatian part of the Adriatic Sea

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Dolphin-fisheries interactions may result in injuries that can lead to severe disabilities, impaired health or even death of the affected dolphin. Here we analyse the most frequently injured body parts and organs of bottlenose dolphins (*Tursiops truncatus*) involved in dolphin-fisheries interactions in the Croatian part of the Adriatic Sea between 1990 and 2023. The data were reviewed using necropsy protocols kept at the Faculty of Veterinary Medicine, University of Zagreb, Croatia. During the studied period, 403 bottlenose dolphins stranded dead. Of these, 99 (24.6%) showed signs of dolphin-fisheries interactions, of which 43 dolphins (43.4%) had multiple injured body parts and organs. The lungs were the most affected organ with lung oedema recorded in 27 dolphins due to drowning. Ingested fishing gear in the stomach was recorded in 22 dolphins and larynx strangulation in 19 dolphins as the result of depredation from fishing nets and hooks. Escape attempts from fishing nets caused intermandibular haemorrhage in 18 dolphins, in three specimens superficial skin lesions and three showed skull and teeth fractures. In 16 entangled dolphins, the fluke was amputated post-mortem and incisions were made in the body cavities of seven dolphins when fisherman manipulated the entangled dolphin carcasses. In two dolphins, the fishing gear was wrapped around the entire body and in four dolphins around the tail. Our study indicates that the respiratory and digestive systems are most frequently affected in bottlenose dolphin-fisheries interactions in the Croatian part of the Adriatic Sea. In conclusion, several factors influence the type of injuries caused during dolphin-fisheries interactions, such as the anatomy and behaviour of the dolphin species involved, sex and age of the specimen, and finally the type of fishery and fishing gear used in a particular region.

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