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THE FIRST RECORD OF COMPLETE ALBINISM IN COMMON STINGRAY *DASYATIS PASTINACA* (LINNAEUS, 1758)

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ABSTRACT

*An unusually colored stingray was video-recorded on 15 August 2022 in the eastern central Adriatic. Its morphological characteristics corresponded with the descriptions of the common stingray *Dasyatis pastinaca* (Linnaeus, 1758), however, the specimen observed was entirely white on the dorsal and ventral surfaces, including the tail, except for the tips of the spines. Furthermore, the iris of the specimen lacked pigmentation and exhibited an abnormal orange-yellow (xanthochromic) coloration. This discovery marks the first recorded instance of complete albinism in this particular species and a rare occurrence among elasmobranchs in general.*

Keywords: *Dasyatis pastinaca*, common stingray, albinism, leucism, Adriatic Sea

PRIMA DOCUMENTAZIONE DI ALBINISMO COMPLETO NELLA PASTINACA *DASYATIS PASTINACA* (LINNAEUS, 1758)

SINTESI

*Una razza dai colori insoliti è stata videoregistrata il 15 agosto 2022 nell'Adriatico centro-orientale. Le sue caratteristiche morfologiche corrispondevano alle descrizioni della pastinaca *Dasyatis pastinaca* (Linnaeus, 1758), tuttavia l'esemplare osservato era interamente bianco sulle superfici dorsale e ventrale, coda compresa, ad eccezione delle punte delle spine. Inoltre, l'iride del campione mancava di pigmentazione e mostrava una colorazione giallo-arancio anomala (xantocromica). Questa scoperta segna il primo caso registrato di albinismo completo in questa particolare specie e un evento raro tra gli elasmobranchi in generale.*

Parole chiave: *Dasyatis pastinaca*, pastinaca, albinismo, leucismo, mare Adriatico

INTRODUCTION

Various types of abnormal coloration have been observed in wild and farmed fishes. These disorders occur either as a deficiency of pigmentation (hypomelanosis), e.g., albinism, leucism, piebaldism, and xanthism, or an excess of pigmentation (hypermelanosis), e.g., melanism (Dawson & Heal, 1976; Jawad & Ibrahim, 2018). In most cases, the exact cause of such abnormal coloration remains unclear, as it can result from different factors or their combination, including non-pathological genetic mutations, skin pathologies, hormonal imbalances, specific diets, and interspecific hybridization (Quigley *et al.*, 2016). Albinism is a genetically inherited disorder characterized by a congenital absence of pigmentation in the skin and iris (eyes). It is caused by a disruption to the enzymatic pathway responsible for producing melanin. In contrast, leucism is associated with abnormal skin pigmentation caused by a prenatal enzyme deficiency involved in melanin metabolism. Leucism differs from true albinism in that it is characterized by a reduction in melanin over the entire or part of the body, while the retinal coloration remains normal (Ball *et al.*, 2013; Bigman *et al.*, 2015; Quigley *et al.*, 2016). Sometimes leucism is referred to as partial albinism, but such a condition is, by definition, impossible.

The common stingray *Dasyatis pastinaca* (Linnaeus, 1758) is a coastal demersal species found in temperate waters with a depth range of 5 to 200 m, but typically inhabiting shallower areas between 20 and 60 m in depth. It is distributed along the coasts of the eastern North Atlantic, in the Mediterranean and the Black Sea. It is a yolk-sac viviparous

species, with a gestation period of approximately 4 months. Litters range from 4 to 9 young, whose size at birth is about 8 cm in disc width. The common stingray feeds mainly on demersal invertebrates, such as crustaceans, but also on small mollusks and fishes (Ebert & Stehmann, 2013; Ebert & Dando, 2021). With its whiplash tail intact, it can reach a maximum total length of about 250 cm; its disc can attain a maximum width of 60 cm. In the Mediterranean, females mature at about 28 to 38 cm, and males at 26 to 32 cm disc width (Ebert & Stehmann, 2013; Ebert & Dando, 2021).

Soldo & Lipej (2022) classified the common stingray as an occasional species in the Adriatic based on several published records. However, they noted that recent reports from citizen science suggested it might be more common than previously believed and speculated about the presence of a small Adriatic population. The common stingray can be found throughout the Adriatic Sea, primarily in the channel areas of the eastern part (Jardas, 1984). In Croatia, *D. pastinaca* is strictly protected as a vulnerable species (Soldo & Lipej, 2022), with its conservation status consistent with the rest of the Mediterranean area (Dulvy *et al.*, 2016).

The usual color of the common stingray is plain greyish, olive or brown dorsally and white ventrally, with broad greyish-brown margins on the disc and pelvic fins, and a dark whiplash tail section (Ebert & Stehmann, 2013; Ebert & Dando, 2021).

This paper describes the first observed record of complete albinism in *D. pastinaca*.

MATERIAL AND METHODS

The author of this paper was contacted by a professional diver who made several videos (totaling over 5 minutes in length) of a uniquely colored stingray on 15 August 2022 in the eastern central Adriatic. The videos were recorded at a depth of 21 m, on the northern side of the Krk Island, near the town of Omišalj (Fig. 1). In all videos, including close-ups, the white stingray can be seen resting on or swimming above a rocky bottom (Fig. 2). The videos also showcase two other specimens of the same species of stingray, but with their usual color.

RESULTS AND DISCUSSION

The videos show two specimens of stingray characterized by diamond-shaped discs, very short snouts, and a greyish to olive dorsal coloration, with a clearly visible white underside, as well as broad dark margins on the disc and pelvic fins, and a dark whiplash tail section. These characteristics are consistent with the descriptions of the common stingray *D. pastinaca* found in the literature



Fig. 1: Map of the observation area (★ indicates the exact location) of the albino specimen of common stingray. **Sl. 1:** Zemljevid obravnavanega območja z označeno lokaliteto ulova (★) albinističnega primerka navadnega morskega biča.



Fig. 2. Extract from the video showing the white dorsal and ventral sides of the albino specimen of common stingray.
Sl. 2: Izsek iz videoposnetka, ki prikazuje hrbtno in trebušno stran albinističnega primerka navadnega morskega biča.

(Ebert & Stehmann, 2013; Ebert & Dando, 2021). Additionally, a third specimen with the same body characteristics, including two visible spines, was observed. However, this specimen had an entirely white dorsal surface with only sporadic small darker spots of different sizes scattered across it. The underside was also completely white, as was the tail, except for the tips of the spines. The size comparison of the common stingray to other fish in the vicinity indicated that it was an adult indi-

vidual, likely female, as no claspers were observed. Additionally, the presence of small darker spots visible on the ventral side suggested that this might be a case of leucism rather than complete albinism. However, a closer examination of this specimen in the video revealed that even the irises lacked pigmentation; in fact, the specimen exhibited an abnormal orange-yellow (xanthochromic) eye coloration, while retinal pigmentation was clearly visible in the other two normally colored specimens.

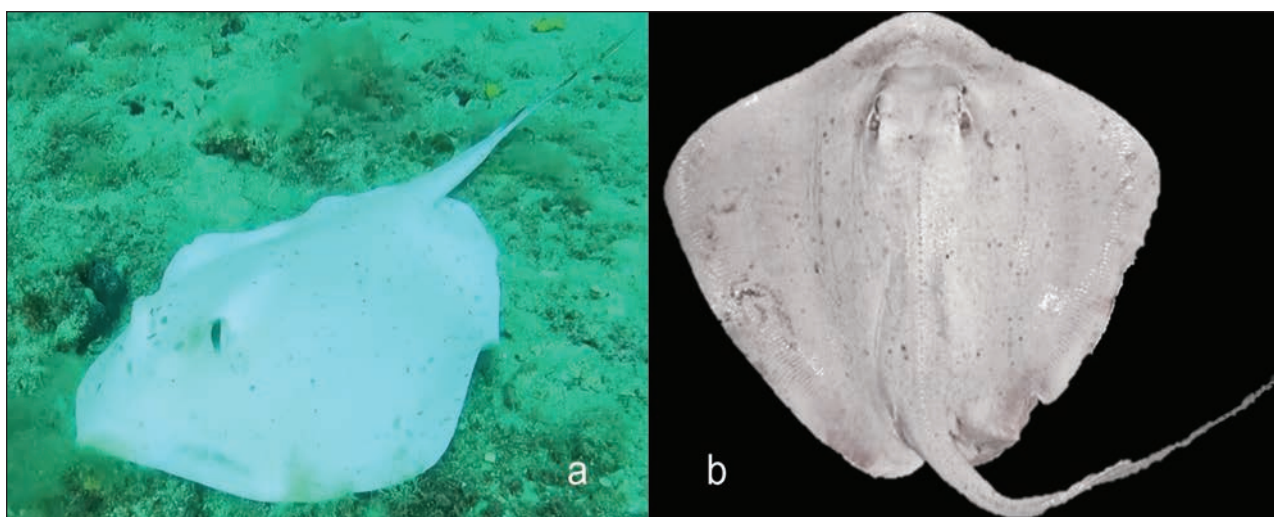


Fig. 3. Comparison between (a) the *Dasyatis pastinaca* from this study and (b) the southern stingray *Hypanus americanus* specimen reported by Wakida-Kusunoki (2015).

Sl. 3: Primerjava primerka vrste *Dasyatis pastinaca* (a) iz pričujoče študije s (b) primerkom južnega morskega biča, o katerem je poročal Wakida-Kusunoki (2015).

Given the specimen's extremely whitish coloration, we can conclude that this is the first known case of true complete albinism in the common stingray. This finding is consistent with the results presented by Wakida-Kusunoki (2015), who first reported an instance of complete albinism in another stingray species, *Hypanus americanus* (Hildebrand & Schroeder, 1928). A comparison of the photos of the specimens clearly shows that both specimens have very similar coloration: they are entirely white, except for a few darker spots dorsally, and with unpigmented irises (Fig. 3).

So far, no case of complete albinism has ever been reported for *D. pastinaca*. Only partial albinism has been observed in this species by Capapé & Pantoustier (1975). In contrast, complete albinism has been reported for *H. americanus* by Schwartz & Safrit (1977), and more recently by Wakida-Kusunoki (2015). These are the only instances, to date, of complete albinism in the Dasyatidae family, which is consisted of 99 valid species (Fricke *et al.*, 2023).

Moreover, out of the approximately 1,300 species of sharks, rays and chimeras (Fricke *et al.*, 2023), complete albinism or leucism has been reported in fewer than 60 species of elasmobranchs (Bigman *et al.*, 2015; Wakida-Kusunoki, 2015; Quigley *et al.*, 2018). Among these reports, more species are described as leucistic than fully albino. Therefore, albinism remains a very rare condition, especially among the adult population, probably because the lack of coloration in albinos can increase an individual's susceptibility to predation or make them less attractive for reproduction (Sandoval-Castillo

et al., 2006). However, since large albino elasmobranchs have been reported, although more rarely than immature ones, it would seem that albinism does not necessarily lead to a lower chance of survival in elasmobranchs (Bigman *et al.*, 2015). It is worth noting that the reported albino species are predominantly pelagic elasmobranchs, implying that coloration may not play as significant a role in the water column, while flattened demersal fishes would be highly visible whilst foraging despite their burying behavior (Ben Souissi *et al.*, 2007; Ball *et al.*, 2013).

In addition to being only the second record of complete albinism within the Dasyatidae family, this record represents the second instance of albinism in elasmobranchs inhabiting the Adriatic Sea. Out of the 60 species of sharks and rays reported from the Adriatic (Soldo & Lipej, 2022), complete albinism had only been previously documented in the marble electric ray *Torpedo marmorata* Risso, 1810 (Lipej *et al.*, 2011), when juvenile male and female albino specimens were caught by trawl in the northern Adriatic, off Piran.

While the rarity of albinism records in elasmobranchs can partly be explained by their relatively low natural abundance in nature (Bottaro *et al.*, 2005), it is more reasonable to conclude that the lack of coloration makes them highly visible while foraging for prey, which is a great disadvantage for these general predators. Furthermore, the absence of iris pigmentation in full albinos is likely linked to poor eyesight. Therefore, it can be expected that albinism, particularly in its full form, will remain rare among this group of predatory fishes.

PRVI ZAPIS O NAJDBI POPOLNEGA ALBINISTIČNEGA PRIMERKA NAVADNEGA MORSKEGA BIČA, *DASYATIS PASTINACA* (LINNAEUS, 1758)

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POVZETEK

V vzhodnem srednjem Jadranu so 15. avgusta 2022 posneli videoposnetek nenavadno obarvanega morskega biča. Na podlagi morfoloških značilnosti so ga določili za navadnega morskega biča *Dasyatis pastinaca* (Linnaeus, 1758), primerek pa je bil povsem bel na hrbtni in trebušni strani trupa in repa, le vrhovi bodic niso bili beli. Brez pigmenta je bila tudi šarenica, ki je imela oranžno-rumeno (ksantokromično) obarvanost. Najdba predstavlja prvi evidentirani primer popolnega albinizma pri tej vrsti, ki je obenem tudi redek primer med hrustančnicami nasploh.

Ključne besede: *Dasyatis pastinaca*, navadni morski bič, albinizem, levizem, Jadransko morje

REFERENCES

- Ball, R.E., C.S. Jones, A. Lynghammar, L.R. Noble & A.M. Griffiths (2013):** The first confirmed cases of full albinism in rajid species. *J. Fish. Biol.*, 82, 1433-1440.
- Ben Souissi, J., D. Golani, H. Merji, M. Ben Salem & C. Capapé (2007):** First confirmed record of the Halave's Guitarfish, *Rhinobatos halavi* (Forsskal, 1775) (Chondrichthyes: Rhinobatidae) in the Mediterranean Sea with a description of a case of albinism in elasmobranchs. *Cah. Biol. Mar.*, 48, 67-75.
- Bigman, J.S., J.D.S. Knuckey & D.A. Ebert (2015):** Color aberrations in Chondrichthyan fishes: first records in the genus *Bathyraja* (Chondrichthyes: Rajiformes: Arhynchobatidae). *Mar. Biodivers.*, 46(3), 579-587.
- Bottaro, M., S. Ferrando, L. Gallus, L. Girosi & M. Vacchi (2005):** First record of albinism in the deep-water shark *Dalatias licha*. *Mar. Biodivers. Rec.*, 1, 1-4.
- Capapé, C. & C. Pantoustier (1975):** Anomalies chez quelques Sélaciens des côtes tunisiennes. *Arch. Inst. Pasteur. de Tunis.*, 52(3), 251-260.
- Dawson, C.E. & E. Heal (1976):** A bibliography of anomalies of fishes. Supplement 3. *Gulf Research Reports*, 5(2), 35-41.
- Dulvy, N.K., D.J. Allen, G.M. Ralph & R.H.L. Walls (2016):** The Conservation Status of Sharks, Rays and Chimaeras in the Mediterranean Sea. IUCN: Malaga, Spain, 14 pp.
- Ebert D.A. & M. Dando (2021):** Field Guide To Sharks, Rays & Chimaeras Of Europe And The Mediterranean. Princeton University Press. Princeton, New Jersey, 385 pp.
- Ebert D.A. & M.F.W. Stehmann (2013):** Sharks, batoids, and chimaeras of the North Atlantic FAO Species Catalogue for Fishery Purposes. No. 7. Rome, FAO, 523 pp.
- Fricke, R., W.N. Eschmeyer & R. Van der Laan (Eds.) (2022):** Eschmeyer's Catalogue of Fishes: Genera, Species, References. 2022. Available online: <http://researcharchive.calacademy.org/research/ichthyology/catalog/fishcatmain.asp> (accessed on 5th June 2023).
- Jardas, I. (1984):** Adriatic Chondrichthyes from biogeographical standpoint. *IOR Notes* 1984, 59, 1-7.
- Jawad, L.A. & M. Ibrahim (2018):** Partial xanthism and xanthic phenotype in two fish species from Jubail City, Arabian Gulf Saudia Arabia. *Cah. Biol. Mar.*, 59(1), 37-42.
- Lipej, L., B. Mavrič, V. Žiža & C. Capapé (2011):** First cases of albinism recorded in the marble electric ray *Torpedo marmorata* (Chondrichthyes: Torpedinidae). *Cah. Biol. Mar.*, 52, 261-267.
- Quigley, D.T.G., R. Lord, D. MacGabhann & K. Flannery (2016):** First records of xanthochromism in three-bearded rockling *Gaidropsarus vulgaris* (Cloquet, 1824) and pollack *Pollachius pollachius* (Linnaeus, 1758). *Journal of Applied Ichthyology*, 33(6), 1208-1210.
- Sandoval-Castillo, J.E., C. Mariano-Melendez & C. Villavicencio-Garayzar (2006):** New records of albinism in two elasmobranchs: the tiger shark *Galeocerdo cuvier* and the giant electric ray *Narcine entemedor*. *Cybio*, 30(2), 191-192.
- Soldo, A. & L. Lipej (2022):** An Annotated Checklist and the Conservation Status of Chondrichthyans in the Adriatic. *Fishes*, 7, 245. <https://doi.org/10.3390/fishes7050245>.
- Wakida-Kusunoki, A.T. (2015):** First record of total albinism in southern stingray *Dasyatis americana*. *Rev. Biol. Mar. Oceanogr.*, 50(1), 135-139.