

## ASSESSING POPULATION HEALTH AND GENETICS

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# POPULATIONS OF ATLANTIC HUMPBACK DOLPHINS ARE BECOMING FRAGMENTED AND ISOLATED. WHERE THEY CLING TO EXISTENCE THEIR HEALTH AND FUTURE SURVIVAL MAY BE AT RISK.



# CCAHD

Consortium for the Conservation  
of the Atlantic Humpback Dolphin

Atlantic humpback dolphins (*Sousa teuszii*) appear to be distributed in small, fragmented populations throughout their 7000km long range along the west coast of Africa. Ever-mounting threats from human activities are degrading and destroying more habitat, potentially further reducing populations, rendering them more vulnerable to disease and (localized) extinction.

Where the species is known to occur, it is important to understand whether individual dolphins are in good condition and able to reproduce and care for their young. It is also important to know whether they are completely isolated from other populations, or still genetically connected to neighbouring populations that might help to replenish their stocks if numbers in a particular area are declining for any reason.

Finally, in the event that one or more individual dolphins might require some form of rescue or relocation in the event of a stranding or irreversible damage to their habitat, it is important to have information about their normal vital and reproductive parameters and how they might react to human handling. This data is currently entirely lacking for *Sousa teuszii*.

The CCAHD has identified several priority non-invasive strategies for collecting valuable data on health and genetics essential for the conservation of the species:

- Field survey protocols are a means to photograph and/or film aspects of dolphin biology and physiology that allow assessment of health parameters, such as external signs of disease, scarring indicative of interactions with fishing gear or boats, overall body condition, and reproductive parameters (for example the presence of calves).
- Drones will be used to improve estimates of dolphin group sizes, and the size and body condition of individual dolphins within the groups.
- Basic stranding response protocols include the collection of photographs that highlight external signs of disease and/or other causes of death and provide a standardized process for collection of tissue samples for genetic analysis and pollutants.
- More advanced training on post-mortem investigation methods for range-country scientists and (terrestrial) veterinary pathologists enable the collection of data on diet (from stomach contents), disease, age (through teeth) and reproductive status and histories (through examination of sexual organs).



- Studies of other related dolphin species like the Indian Ocean humpback dolphins (*Sousa plumbea*) is yielding insights into health and reproductive parameters that are likely to be similar for *Sousa teuszii*.



CCAHD researcher taking teeth from an Indo-Pacific humpback dolphin (*Sousa chinensis*) in Malaysia. Teeth can be used to age dolphins. Photographs and post-mortem analysis of dead dolphins can also reveal information about cause of death, disease, and reproductive parameters. Photo by Sarawak Dolphin Project.





High resolution images of dorsal fins and tail flukes can reveal evidence of scarring (in this case caused by the teeth of fellow dolphins), or skin disease.

Left and bottom photos by G. Minton, CCAHD



**An estimated 275,000 Euros are needed to support the CCAHD's objectives for assessing health and genetics over 5 years. Your contribution, no matter how big or small, can make a difference!**

- **10-100 Euros** can help to purchase a stranding response kit for a CCAHD range-country partner.
- **1,000-5,000 Euros** can fund a literature study of health and reproductive parameters in other humpback dolphin species.
- **10,000-50,000 Euros** could fund a comprehensive analysis of existing data on *Sousa plumbea* in South Africa.
- **50,000-100,000 Euros** could fund one or two hands-on regional training workshops for stranding response and necropsy (post-mortem analysis of dead dolphins).

**[CLICK HERE](#) or scan the QR code to make a donation, or get in touch with the CCAHD Secretariat at [infoccahd@gmail.com](mailto:infoccahd@gmail.com) to learn more.**

