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Using drones to quantify the length of marine animals

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Software

- Review
- Repository
- Archive

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Summary

It is a daunting task to quantify the length of marine mammals like porpoises and seals, as it most often is required to catch the animal before it can be quantified. Using video acquired with an Unmanned Aerial Vehicle (UAV) and then utilizing information about camera position and orientation from the flight log of the UAV, it is possible to estimate lengths of marine animals while they are in the water surface and get gps coordinates to the location of the animal. The `Porpoise tracker` python program enables the user to combine videos recorded by DJI drones with information from the flight log. The accuracy of method was investigated by (Midtiby & Egemose, 2019).

With the software marine biologist can estimate the size of marine animals in UAV recordings, using an noninvasive method and with a significantly lower time usage compared to the capture and measure process.

The Porpoise Tracker software is available on [github.com] (Egemose & Midtiby, 2019) and is released under the BSD 3-Clause License. The software was developed as part of the Back2Nature project at the University of Southern Denmark.

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The `Porpoise Tracker` is currently used in several studies related to harbor porpoises and grey seals at both the University of Southern Denmark and Aarhus University.

References

Egemose, H. D., & Midtiby, H. S. (2019). Porpoise tracker. Retrieved from https://github.com/henrikmidtiby/PorpoiseTracker/

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