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Arabian Sea Humpback Whale Biotelemetry ICG Report

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The chair of the Arabian Sea humpback (ASHW) whale biotelemetry ICG (formed at SC68B) held an additional meeting during SC69A (on 1 May 2023) to discuss a new proposal to tag ASHWs in Oman in 2023/24. The group was comprised of members associated with development of tagging technology, tag impact health assessments and implementation of tagging surveys. In 2013 during SC65A conditional endorsement was given for tagging following a review of the health impacts of tagging using Wildlife Computers Splash MK10 implant tags. Conditions of that endorsement included: limiting tagging to 20% of the population, the use of only experienced personnel in tagging operations, and reference to the latest review of health assessment studies for the tags used at the time (IWC 2013a, Robbins et al 2013). Following this endorsement 13 ASHW were tagged in Oman between 2014 and 2017. This represented an estimated 16% of the population based on a 2008 abundance estimate of $N=82$ (CI:95%; 60-111)(Minton et al., 2008).

The tagging proponents prepared an ethics review using Andrews *et al.* (2019) for the ICG to consider in meetings. Discussions of the group focused on the potential use of a new tagging product (Telonics RDW-665), the quotas to be applied for tagging within the next year, whether or not to tag female humpback whales and the potential influence of this on reproductive success and population level effects.

The group considered that previous tagging work had significantly advanced the understanding of ASHW spatial ecology, supporting the development of ship strike and fishing risk assessments and raising awareness of the perilous status of the population at a regional level.

They proposed that to address gaps in the temporal distribution and sex composition, and understand hypothesised changes in spatial ecology due to climate change, tagging should be conducted in November 2023 and subsequently March or April 2024/2025 with a maximum of 6 individuals in each survey.

Additional discussion during a special session with the Committee provided advice that any additional tagging should only proceed with extreme caution and be undertaken to address seasonal gaps in the dataset and investigate recent unusual distribution patterns described in CMP07 and CMP12. Furthermore the group advised the team should only consider using tags with robust health assessment studies (i.e. Wildlife computer Mk10 implantable tags). Given potential health-related risks associated with the tagging a small population, the tagging should only proceed where there is intent from authorities to follow-up with management measures that will reduce threats in areas of important habitat. If attempted, the team should continue to conduct body condition and health assessments during and following tagging surveys and be prepared for any tagging related stranding response. Should the proponents decide to proceed with tagging the Committee advised adopting tagging protocols as listed in this document. The Committee commended the proponents for inviting expert consultation on this issue and encourages the group to report back to the ICG between any future tagging events.

Tagging protocols proposed by Oman tagging proponents for ASHW

- Consider tagging no more than 20% of the population in the next 2 year period.
- Continued use of the Wildlife Computers Mk10 model.
- The team on-board the tagging vessel to only be comprised of experienced personnel
- Tags to be treated with high level sterilisation procedure (chemical gas sterilisation) prior to field mobilisation and kept sealed until prior to deployment. Compromised/ contaminated

tags can be treated in the field with a disinfection process using hydrogen peroxide, peracetic acid, and hydrogen peroxide/peracetic acid mixtures.

- The team to reference the Oman ASHW photo-ID catalogue for sex-based selection of candidate whales.
- Biospy samples and photo-ID records are to be taken simultaneously to tagging candidate whales to ensure subsequent sex determination.
- Known females should constitute 50% of the sample size. The tagging for whales of unknown sex to include only 50% of tagged whales (noting from previous surveys there is a 50% chance of encountering new individuals).
- Mother and calf pairs not to be tagged.
- Tag quota not to include mothers with calves.
- Tagging to take place less than Beaufort Force 4.
- Vessel and UAV acquired photos to be used to track the body condition and impact of the tagging site of individuals over successive surveys.
- Communication of tagging health assessments back to the ICG for subsequent review and incorporation into global tag impact assessment and protocol reviews.
- Refer to latest updates of tagging health impact assessments prior to fieldwork.
- Ensure health and safety of tagging personnel according to Hassel et al. 2022.

The ICG agreed to reconvene later in 2023/2024 to discuss long-term quotas for implant tagging work.