

Final summary report

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Preserving the endangered African manatee (*Trichechus senegalensis*, Link 1795) population from human activities in Lake Ossa Wildlife Reserve

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Over the last decade, research and conservation efforts, although hampered by financial, technical, and logistical difficulties, have revealed that the lower basin of the Sanaga River sustain a healthy population of African manatees (Powell., 1996, Grigione., 1996, Kamla., 2010, Mayaka et al., 2014, Ngafack., 2014). Apart from the hunting pressure, the population of African manatees in Lake Ossa is suffering from anthropogenic threats due to the overlap between the manatee's preferred habitat and the favorite fishing areas of fishermen. The consequence of this overlap is the entanglement of calves in fishing nets. The aim of this 12 month study was to address conflicts between manatees and fishermen by determining manatee hotspots and the favorite areas of fishermen in Lake Ossa. A face to face interview using a semi structure questionnaire, with a A3 format grid map was conducted near 61 experienced fishermen from 7 communities' around Lake Ossa on their favorite areas. Results showed that during the dry season, the manatees preferred habitat overlapped with more than half of the respondents favorite fishing areas at the Open lake (63.94%, n=39) followed by the edge of the lake, with just a few of them preferring the creeks, and none in the embouchure with 34.42%, n= 21 1.63%, n=1 and 0 %, n=0 respectively. Among the 38 fishermen active during the rainy season, we found that most of them preferred to cast their nets at the edge of the lake (73.68 %, n=28) followed by the open lake and creeks with 10.52%, n=4 and 7.89%, n=3 respectively while a few interviewees (7.89%,n=3) were active in the embouchure connecting Lake Ossa to the Sanaga River.

For this project, six monthly, 30 minutes, point scan surveys were conducted at six sampling sites (Mwembe, Mouth, Mouth LM, Plantation, Melonga, and Mevia) distributed throughout the reserve. After eight months of surveys, with 45 scans (22.5 hours) in each of the sampling sites, we obtained the following results: The overall probability of seeing one or more manatees during 30 minutes of observation, regardless of the sampling site in Lake Ossa, was ($P= 0.04$, $\lambda=0.33$). The highest probability of seeing at least one manatee during 30 minutes of observation in Mevia followed by Mwembe was ($P= 0.27$, $\lambda=1.02$ and $P= 0.07$, $\lambda= 0.44$) respectively while the lowest probability of seeing a manatee during 30 minutes of observation in Mouth LM in Lake Ossa was ($P= 0.0019$, $\lambda= 0.02$).

The data from this project was used by AMMCO and their partners, namely by the Conservation Service and the ZSL to establish 10% of Lake Ossa identified as high risk areas for manatees and as no fishing zones to create commensal co-existence between fishermen and manatees in Lake Ossa.