



BSc (Hons) Project

Institute for Coastal & Marine Research (ICMR)
Nelson Mandela Metropolitan University
Port Elizabeth

Can we afford to lose African penguins?

Duration 2017
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Bursary attached to the project: R40 000.

Background

Penguins are highly iconic species much loved by the general public. They are also among the most threatened seabird species (Croxall et al. 2012). African penguin numbers have decreased by 70% since 2004 in South Africa (Crawford et al. 2011), and major conservation efforts have been undertaken to reverse this trend, such as the removal of predators on colonies or the implementation of artificial burrows for shelter against extreme weather events (Pichegru 2013). One of the main factors behind the decline in numbers is a lack of prey, owing to a recent shift over the past decades in the distribution and abundance of their preferred prey, sardines and anchovies (Crawford et al. 2015). This shift has resulted in competition with the purse-seine fishery for the same resource pool of small pelagic fish, especially around the penguin breeding colonies, to which adults must return in order to feed their offspring regularly (Pichegru et al. 2012). The purse-seine fishing industry is the largest fishery in South Africa in terms of landings (>600 000 t annually, Department of Agriculture, Forestry and Fisheries (DAFF), unpubl. data), contributing significantly to the Gross Domestic Product (GDP), and conservation management decisions are traded off against human livelihoods and jobs. The African penguin, however, is the only penguin in Africa and a major tourist attraction in South Africa (Lewis et al. 2012). Unfortunately, there is limited information on direct income generated from penguin-related tourism in South Africa and its contribution to the GDP, particularly in the Eastern Cape. This project will estimate the direct and indirect contribution of African penguins to the national and provincial economy in terms of direct revenues and job creation in order to inform trade-offs in conservation-fishery management decisions.

References

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