



PhD Studentship: Population bottleneck of batoids caught in the KwaZulu-Natal Sharks Board Bather Protection Programme, South Africa.

KwaZulu-Natal Sharks Board (www.shark.co.za) invites applications for a full-time PhD position to investigate genetic bottleneck in three batoid species (diamond ray *Dasyatis dipterura*, flapnose ray *Rhinoptera javanica* and spotted eagle ray *Aetobatus narinari*) along the east coast of South Africa. The position is funded by the National Research Foundation (NRF) for a maximum of three years (2019-2021) and is available immediately. Although the NRF gives preference to local applicants, students from outside of South Africa are encouraged to apply and will be selected if they are clearly more qualified than any local applicants, particularly if one or more of the following criteria apply: a) a distinction in their previous degree (e.g. MSc *cum laude*); b) experience with microsatellites or next-generation sequencing applications and c) at least one publication in a reputable scientific journal.

This project is part of a multidisciplinary collaboration including Drs Kolobe Mmonwa and Matt Dicken (KwaZulu-Natal Sharks Board), Prof Peter Teske (University of Johannesburg) and Dr Aletta-Bester van der Merwe (Stellenbosch University). The student will be based at the University of Johannesburg or Stellenbosch University for the duration of the project, with occasional visits to the KwaZulu-Natal Shark Board. There will be no sampling trips, as all genetic samples have already been collected.

Remuneration is R (ZAR) 120 000 per year (NRF). A short summary of the project is included below. Interested students should please send a single email to all the following addresses: pteske101@gmail.com, lucas@shark.co.za and aeb@sun.ac.za. Please include a short letter of motivation (max. 1 page) in which you outline relevant interests and skills, a short CV, and contact details of at least 3 referees (one of which should be your most recent supervisor or line manager).

Summary: The KwaZulu-Natal Sharks Board deploys shark nets to protect bathers against shark attacks at 32 popular beaches along the KwaZulu-Natal coast. Demographic analyses using catch data between 1979-2015 found that catches of two of the batoids commonly caught as bycatch in the nets were declining, which may be attributed to both the nets and to fisheries operating in the western Indian Ocean. This project aims to investigate genetic signals of population bottleneck of three batoids using next-generation sequencing methods. The scientific knowledge produced will be crucial in providing an objective evaluation of the impact of shark nets and other factors on batoid population sizes.