

Diagrams to compare models of the previous and revised sardine stock structure hypotheses for South African sardine

C.L. de Moor*

Correspondence email: carryn.demoor@uct.ac.za

Introduction

Figure 1 is a simple diagram indicating how the revised sardine stock structure hypothesis is to be modelled (de Moor *et al.* 2022). Following the panel’s request, Figure 2 shows a simple diagram indicating how the previous sardine stock structure hypothesis was modelled (e.g. de Moor *et al.* 2017).

References

de Moor CL, Butterworth DS, van der Lingen CD. 2017. The quantitative use of parasite data in multistock modelling of South African sardine (*Sardinops sagax*). *Canadian Journal of Fisheries and Aquatic Sciences* 74:1895-1903.

de Moor CL, van der Lingen CD and Teske PR. 2022. A new hypothesis for South African sardine stock structure. MARAM International Stock Assessment Workshop, 28 November – 2 December 2022, Cape Town. Document MARAM/IWS/2022/Sardine/P3.

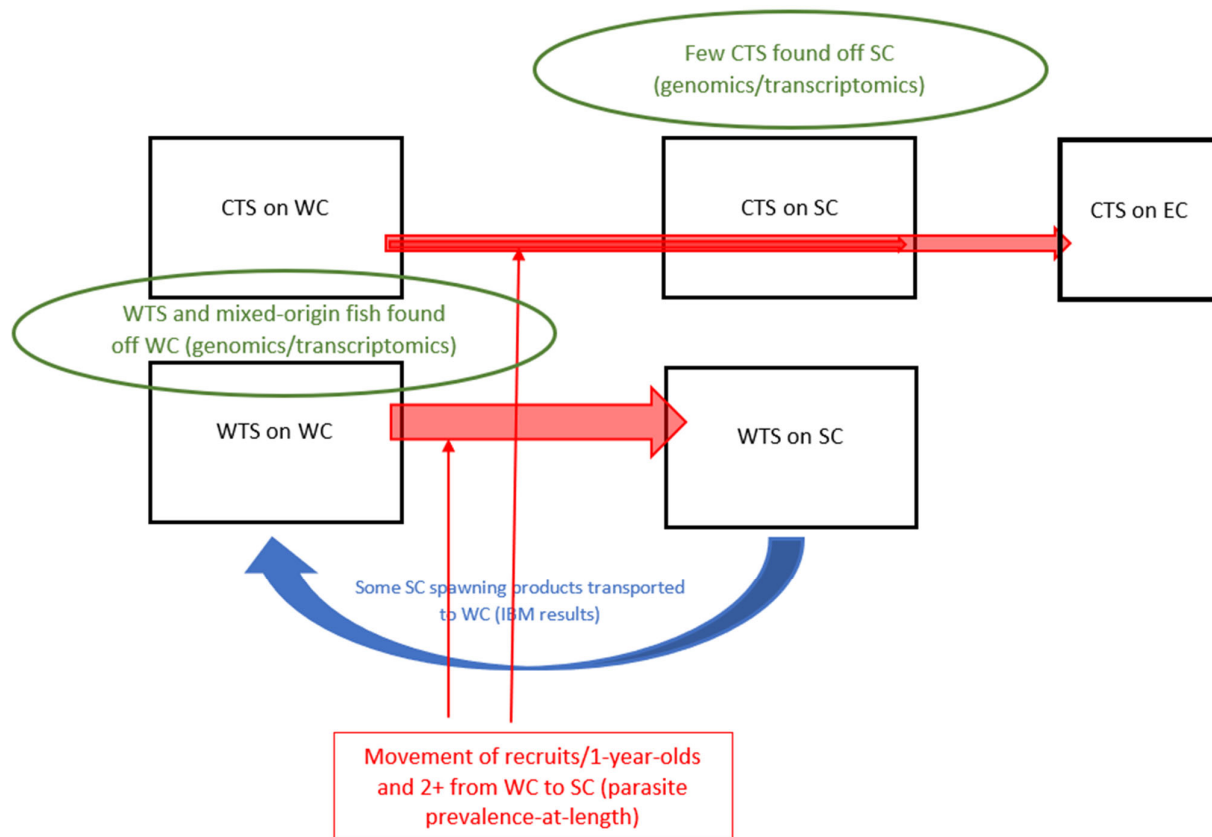


Figure 1. A diagram indicating the modelled distribution of the sardine stock components and movement between areas. WC – West Coast. SC – South Coast. CTS – Fish of Atlantic Ocean Origin (Cool Temperate Sardine). WTS – Fish of Indian Ocean Origin (Warm Temperate Sardine). IBM – Individual-based model. The model will track four separate population/areas: CTS on the WC, CTS on the SC, WTS on the WC, WTS on the SC.

* MARAM (Marine Resource Assessment and Management Group), Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa.

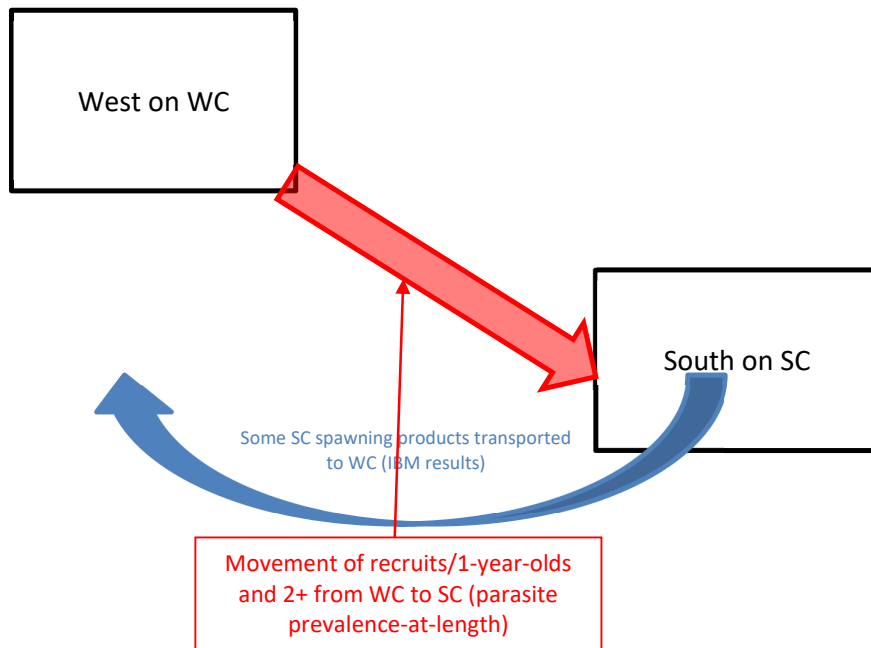


Figure 2. A diagram indicating the modelled distribution of the sardine stock components and movement between areas corresponding to the previous hypothesis (e.g. de Moor *et al.* 2017). WC – West Coast. SC – South Coast. CTS – Fish of Atlantic Ocean Origin (Cool Temperate Sardine). IBM – Individual-based model. The model tracked two separate population/areas: West component on the WC, and South component on the SC.