Session 4

Sardinella aurita growth parameters variability under the balanced effects of climate change and fishing pressure

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Abstract

Sardinella aurita is an overexploited small pelagic fish and a key species in Senegal at socioeconomics level, nevertheless the growth parameters which is a good indicator of fish stressors, have not been updated since 30 years. In this work, we analysed *S. aurita* (n = 32 300) age and growth in Senegal taking into account the tropical seasonality. Growth parameters are then compared with those previously obtained in the literature on the same geographical area (since 60 to 34 years) and more widely in different locations in tropical North Atlantic and Mediterranean Sea. The results show a significant difference of growth parameters in Senegal since thirty years, indeed growth *of S. aurita* became slower and its maximum size has significantly decreased. The comparison of *S. aurita* variability in growth performance reported in Mauritania-Senegal coast, as well as in Mediterranean Sea and Eastern/Western Atlantic Ocean reveals a significant influence of environmental parameters and/or the level of exploitation. In one hand in tropical Atlantic, *S. aurita* growth in Eastern Central is similar to the one reported in Western Central, while *S. aurita* growth is rather slow in Mediterranean Sea where, *vs* tropical Atlantic, Sea temperature and prey availability are lower. On the other hand, in the Atlantic Western Central, where the fishing pressure on the stock is lower over the last decade *vs* Atlantic Eastern Central, an increase in asymptotic length is observed, while in the Mediterranean Sea and Atlantic Eastern Central, where the fishing pressure is higher, the asymptotic length has drastically decreased. We assume that the fishing pressure and the climate change, or a combination of both, have an effect on the biological parameters of *S. aurita*.

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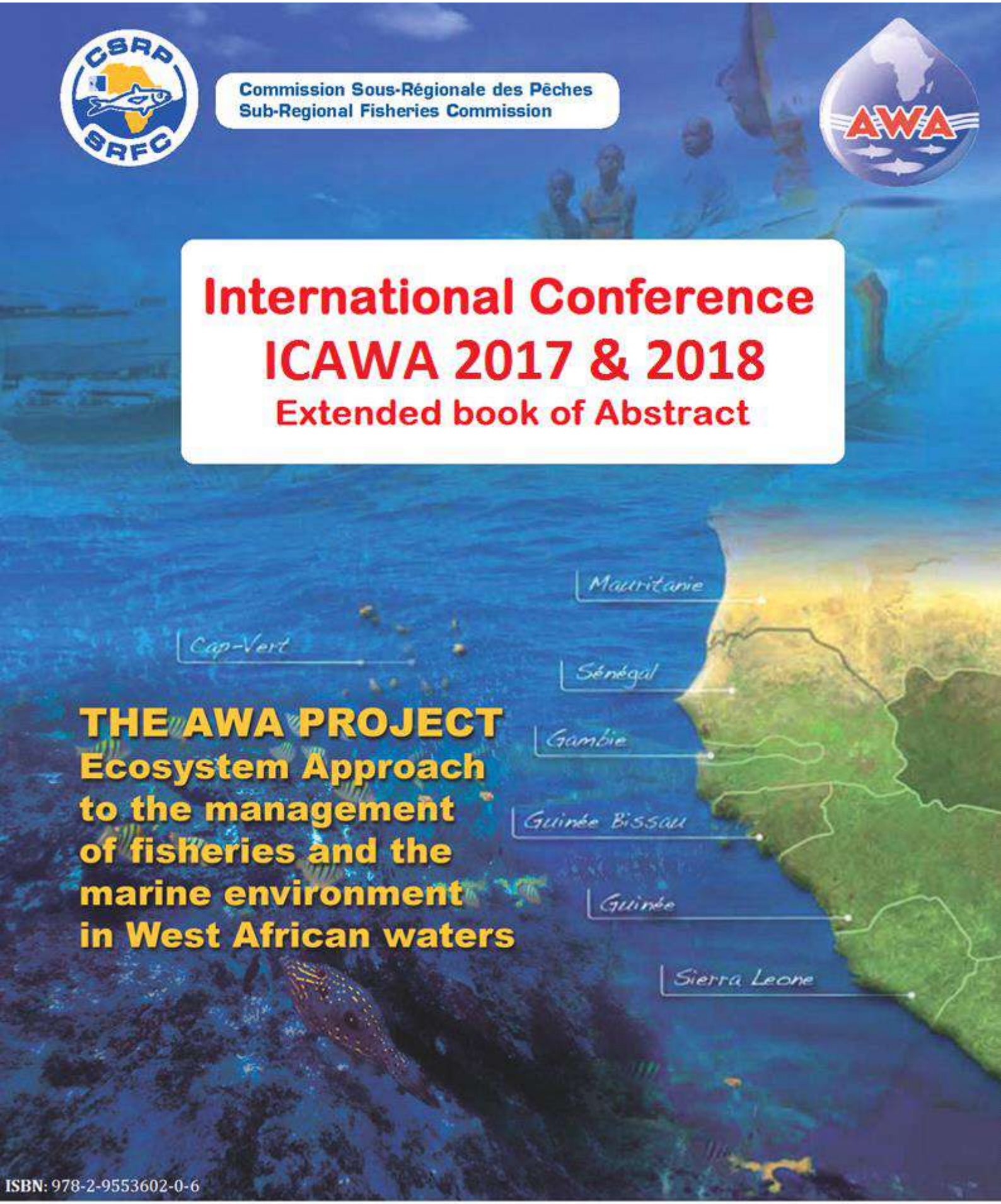
Extended book of Abstract



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The both last ICAWA edition, 2017 and 2018, was done as a joint event with other closely related meeting. In 2017 with the inauguration of the OSCM in Cabo Verde underlining AWA cooperation with INDP and UNICV as well as Geomar and collaborators. In 2018 ICAWA was join to Preface final meeting following the memorandum of understanding signed a couples of years before between the two consortium and which have led at the end to a common policy session followed by the redaction of a policy brief taking advantage of the results of the both projects. Some abstract aside ICAWA joint session are missing see the orgniser to get more information.

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