

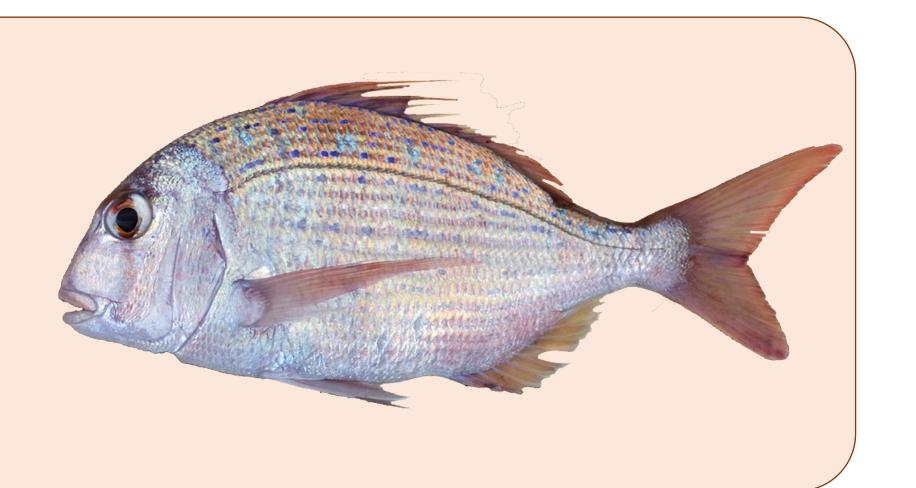
DEMERSTEM: WP1 – STOCK IDENTIFICATION Pagrus caeruleostictus— GUINEA BISSAU AND GUINEA

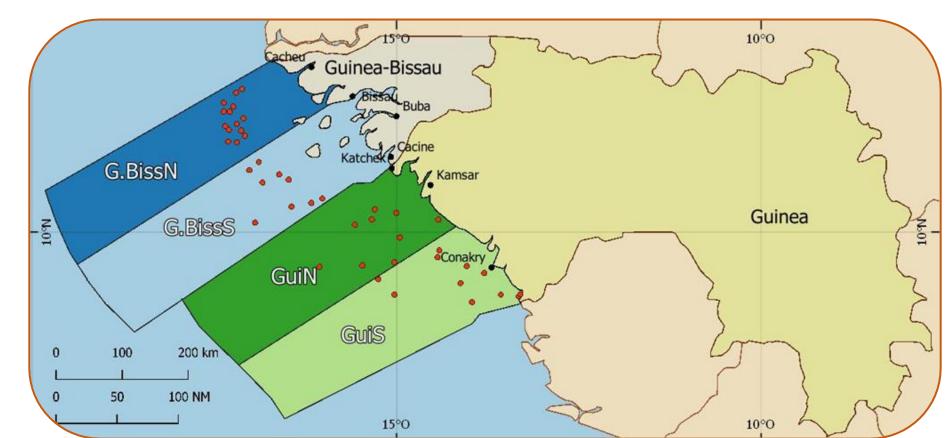


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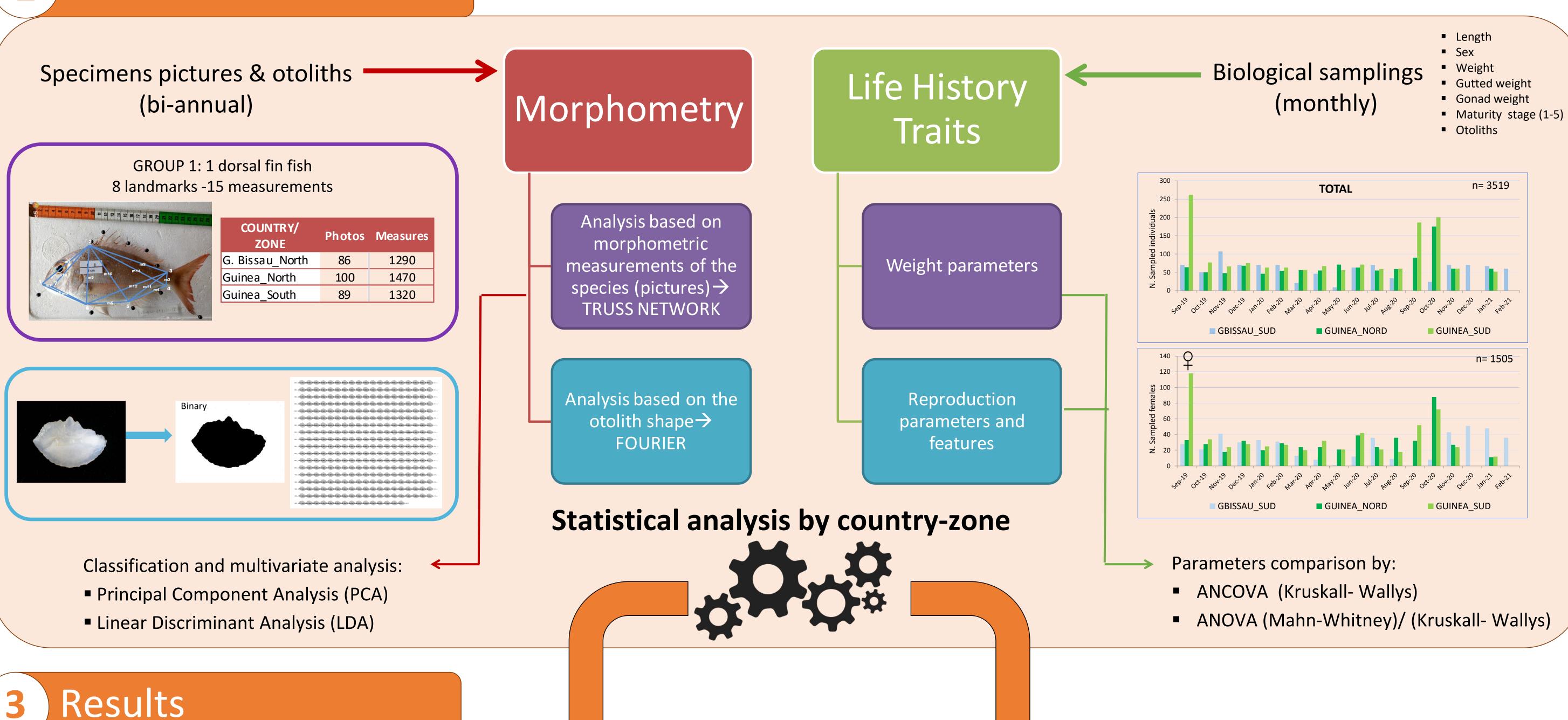
1 Introduction

The bluespotted seabream *P. caeruleostictus* is assessed by CECAF as one single stock of "seabreams" (Sparidae) for Guinea-Bissau, Guinea, Sierra Leone and Liberia. Taking into account the mix of species, the consideration of one single stock for these four countries follows practical reasons and has no any biological basis.



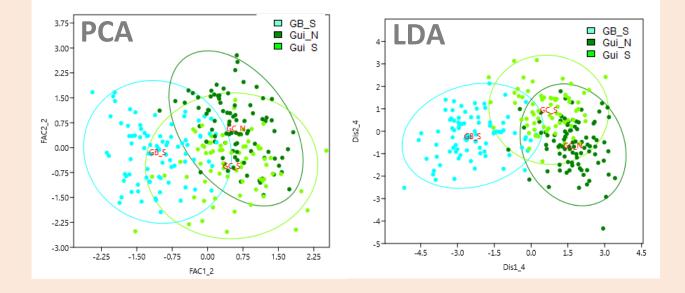


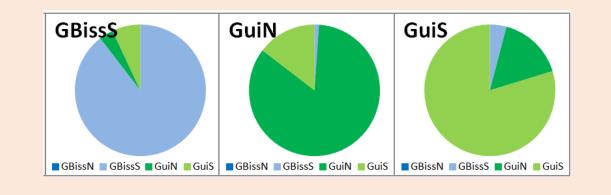
2 Methods



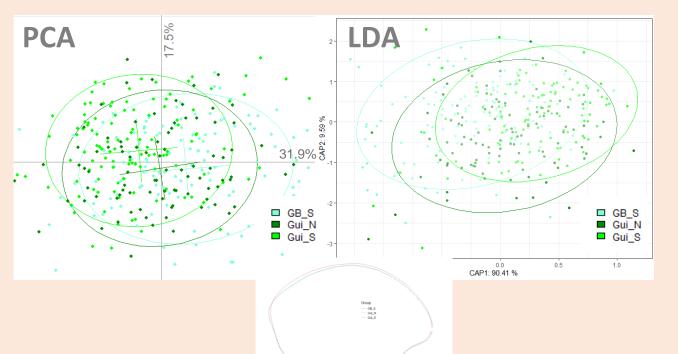
Morphometry

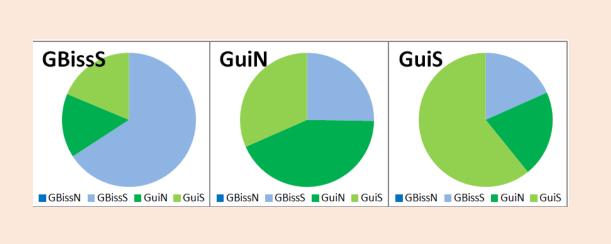
SPECIMEN SHAPE (TRUSS NERWORK)





OTOLITH SHAPE (FOURIER ANALYSIS)



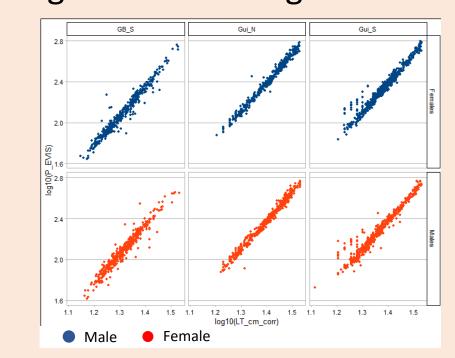


The correct classification of individuals using specimen shape is higher than by otolith shape. Based on the results from morphometry: individuals from Guinea- Bissau could be distinguished from individuals from Guinea.

Life History Traits

WEIGHT PARAMETERS

Length- Gutted weight relationship



Contry-Zone	Length- Gutted weigth relationship		Le Cren's condition factor (k)		
	Slope (b)	SE	median	mean	sd
G. BISSAU_S	2.85	0.02	0.92	0.92	0.08
GUINEA-N	2.80	0.01	1.02	1.02	0.07
GUINEA_S	2.75	0.01	1.02	1.03	0.11

No significant differences are observed in weight parameters among the four zones.

REPRODUCTION

FEMALES	G.BISSAU_S	GUINEA_N	GUINEA_S
Spawning period	Allyear	All year	Allyear
Spawning peak	Dec-Feb	Sept-Jan	Ago-Jan
L50	18.1	18.0	17.7
CV	0.06	0.05	0.06
N	152	269	356

The species spawns throughout the year, with one main spawning peak, which is longer in Guinea than in Guinea-Bissau. Length at first maturity (L50) of females are consistent between the studied countries-zones, showing very close values.

4 Conclusions (preliminary)

While data from life history traits do not show conclusive results, the two morphometric techniques (body shape-truss network and otolith shape) show more reliable information for stock identification. Following these techniques, two independent stocks of *P. caeruleostictus* can be distinguished for Guinea-Bissau and Guinea. A more in-depth analysis of this information is being carried out and the results may be useful for fisheries assessment and management of this species.

The extension of this study to longer periods and to the southern areas considered as the same stock that Guinea Bissau-Guinea by CECAF (Sierra Leona and Liberia) is highly recommended. In addition, improving the landing reporting at species level is a must to produce reliable assessments of the stocks.







