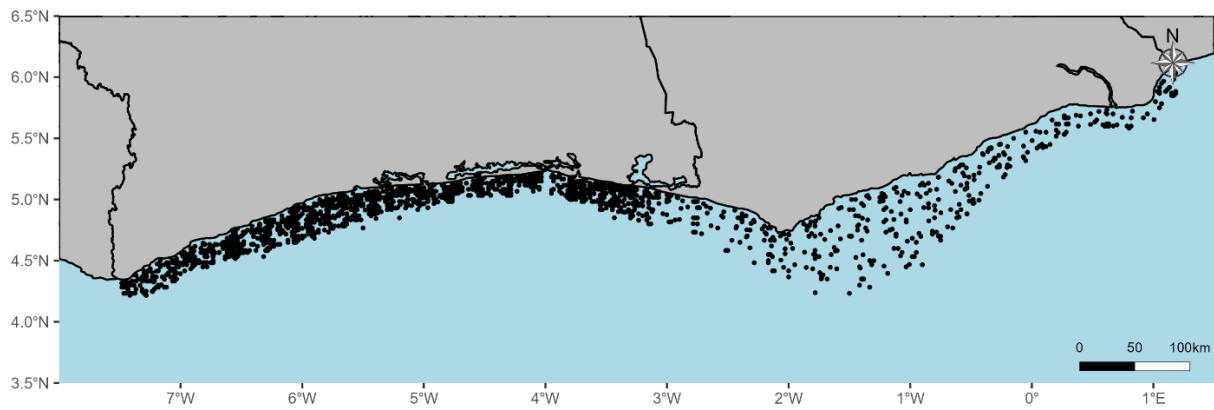
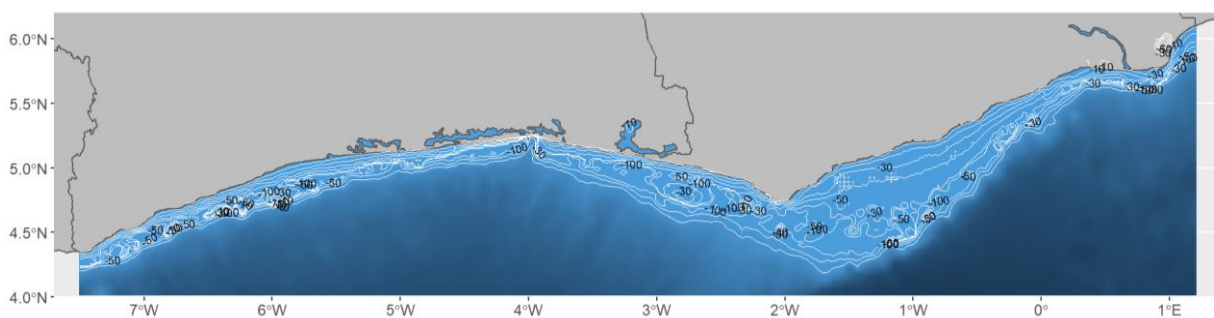


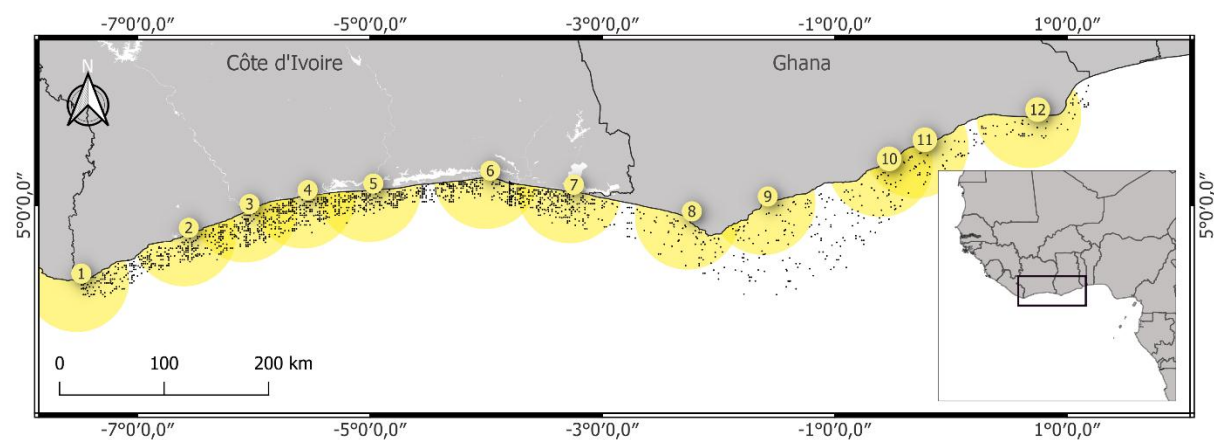
Supplementary materials



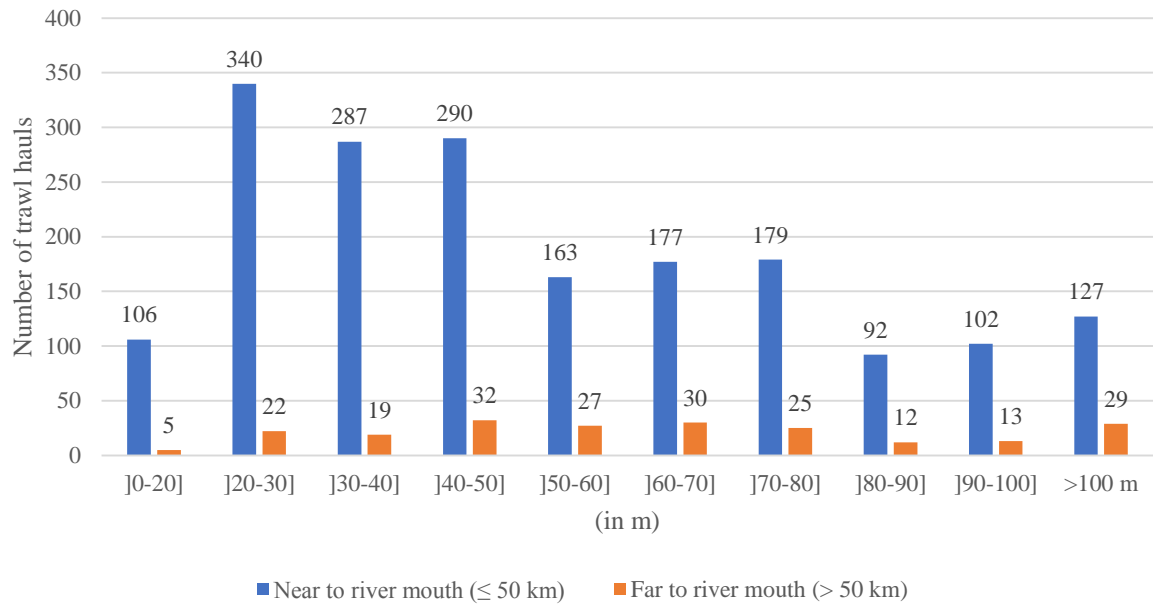
Supp Fig. 1. Geographic position of the trawl hauls in scientific surveys used in this study



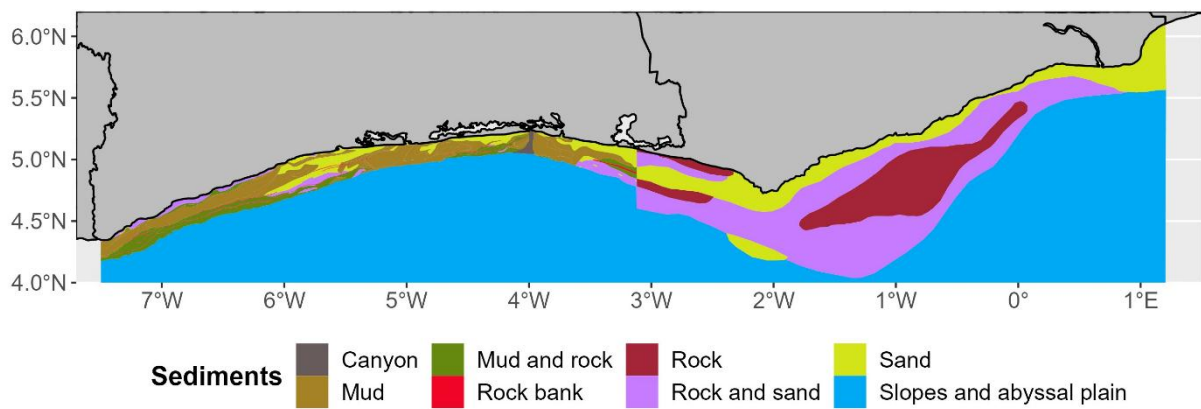
Supp Fig. 2. Bathymetry map of the continental shelf in the study area



Supp Fig. 3. Buffer of 50 km from the entrance of river mouths to the continental shelf covering in the study area



Supp Fig. 4. Number of trawl hauls per class of bathymetry x descriptor of proximity to the river mouths



Supp Fig. 5. Sediment map of the continental shelf on the study zone

Supp Table 1. Bibliographic review of the size at maturity of the three studied species

| Species Sexual dimorphism | Location | Latitudinal range | Range of size at 1st maturity L₅₀ (cm)* | References |
|---|-----------------|--------------------------|--|----------------------------|
| <i>E. aeneus</i> (White grouper, gonochoric**) | Senegal | 12°21'N to 16°05'N | 49-55 | Ndiaye et al. (2013) |
| | Tunisia | 33°11'N to 37°25'N | 40-50 | Bouain (1980) |
| <i>P. senegalensis</i> (Cassava croaker, Hermaphrodite protogynous**) | Congo | | 26.4-28 | Troadec (1971) |
| | Nigeria | 3°39'N to 6°21'N | 35 | Longhurst (1964) |
| | Benin | | 30.4 | Sossoukpe et al. (2013) |
| | Côte d'Ivoire | | 22.20 | Tia (2014) |
| | Liberia | 4°09'N to 6°57'N | 44.5 | Wehye et al. (2017) |
| | Senegal | 12°21'N to 16°05'N | 33-37.6 | Sun (1975) |
| <i>P. bellottii</i> (Red pandora, Hermaphrodite protogynous**) | Ghana | | 13 | Amponsah et al. (2016) |
| | Ghana | 4°06'N to 6°08'N | 20-21 | Asabere-Ameyaw (2000) |
| | Ghana | | 10-11 | Franqueville (1987) |
| | Côte d'Ivoire | | 12.41 | Kouame et al. (2018) |
| | Sierra Leone | 6°56'N to 8°24'N | 22.40 | Konoyima and Seisay (2021) |
| | Senegal | 12°21'N to 16°05'N | 16.75-16.76 | Ndiaye (2014) |

* provided for the first maturity (i.e., female for the two hermaphrodite protogynous species) and considered constant over the study period.

** (Bruslé, 1975; Bruslé and Bruslé, 1976; Ndiaye, 2014; Ndiaye et al., 2013)

Supp Table 2. Proportion of trawl hauls with the presence of the specie based on the total trawl hauls, including catches in life stages where the length structure was estimated

| Species | Life stage | Trawl hauls where the fish were present | Percentage by total trawl hauls (2,077) |
|------------------------------------|-------------------|--|--|
| <i>Epinephelus aeneus</i> | Juvenile | 424 | 20,41% |
| | Adult | 366 | 17,62% |
| <i>Pseudotolithus senegalensis</i> | Juvenile | 359 | 17,28% |
| | Adult | 408 | 19,64% |
| <i>Pagellus bellottii</i> | Juvenile | 1,021 | 49,16% |
| | Adult | 1,359 | 65,43% |

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