

Sussex IFCA Small Fish Surveys – 2022 Summary

Introduction

Sussex IFCA conducted juvenile fish surveys across 4 sites within Chichester Harbour in 2022, which consisted of Copperas, East Head, Pilsey and Winner. The Surveys were conducted in partnership with Chichester Harbour Conservancy and Sparsholt College. It is important to survey fish populations to monitor juveniles of commercially important species and to further understanding of the ecosystem health, particularly within Marine Protected Areas.

Methods

Each of the 4 sites were sampled twice with a 43-metre seine net in 2022. The 43-metre net had 2 outer panels with a mesh size of 14 mm and in inner panel with a mesh size of 6.5 mm. Pilsey was sampled on the 20/06/2022, Winner was sampled on the 21/06/2022, Copperas was sampled on the 11/10/2022, and East Head was sampled on the 18/10/2022. The net was deployed by either wading or off the back of a vessel. All fish were identified to species level, other than 2 individuals. 50 of each species in each sample were measured to total length, with any additional individuals counted. The fish were then returned alive to the sea.

Results

There was a total abundance of 429 fish and a total of 21 species identified to species level. Of the 2 individuals that were not identified to species level, one was identified as a dragonet species, and the other a species of wrasse. Overall, bass (*Dicentrarchus labrax*) was the most observed species (24%), followed by sprat (*Sprattus sprattus*) at 21%, and herring (*Clupea harengus*) at 13%. Table 1 shows a summary across the 4 individual sites.

The surveys demonstrated a wide range of species found to be present across all sites within Chichester Harbour. Continued monitoring is important for the successful management of the marine environment and associated fisheries.

Table 1. A summary for seine net surveys undertaken in Chichester Harbour 2022.

	Pilsey	Winner	Copperas	East Head
Abundance	174	36	179	40
Number of species	15	6	5	5
Simpsons index of diversity	0.63	0.61	0.71	0.31
Most abundant	Sprat	Common goby	Bass	Bass
Relative abundance	52%	61%	37%	82%
2 nd most abundant	Herring	Ballan wrasse	Sand smelt	Golden grey mullet
Relative abundance	31%	11%	34%	12%
3 rd most abundant	Corkwing wrasse/Shanny	Sand goby/Black goby	Thin lipped mullet	Thick lipped mullet/Plaice
Relative abundance	3%	8%	18%	2%

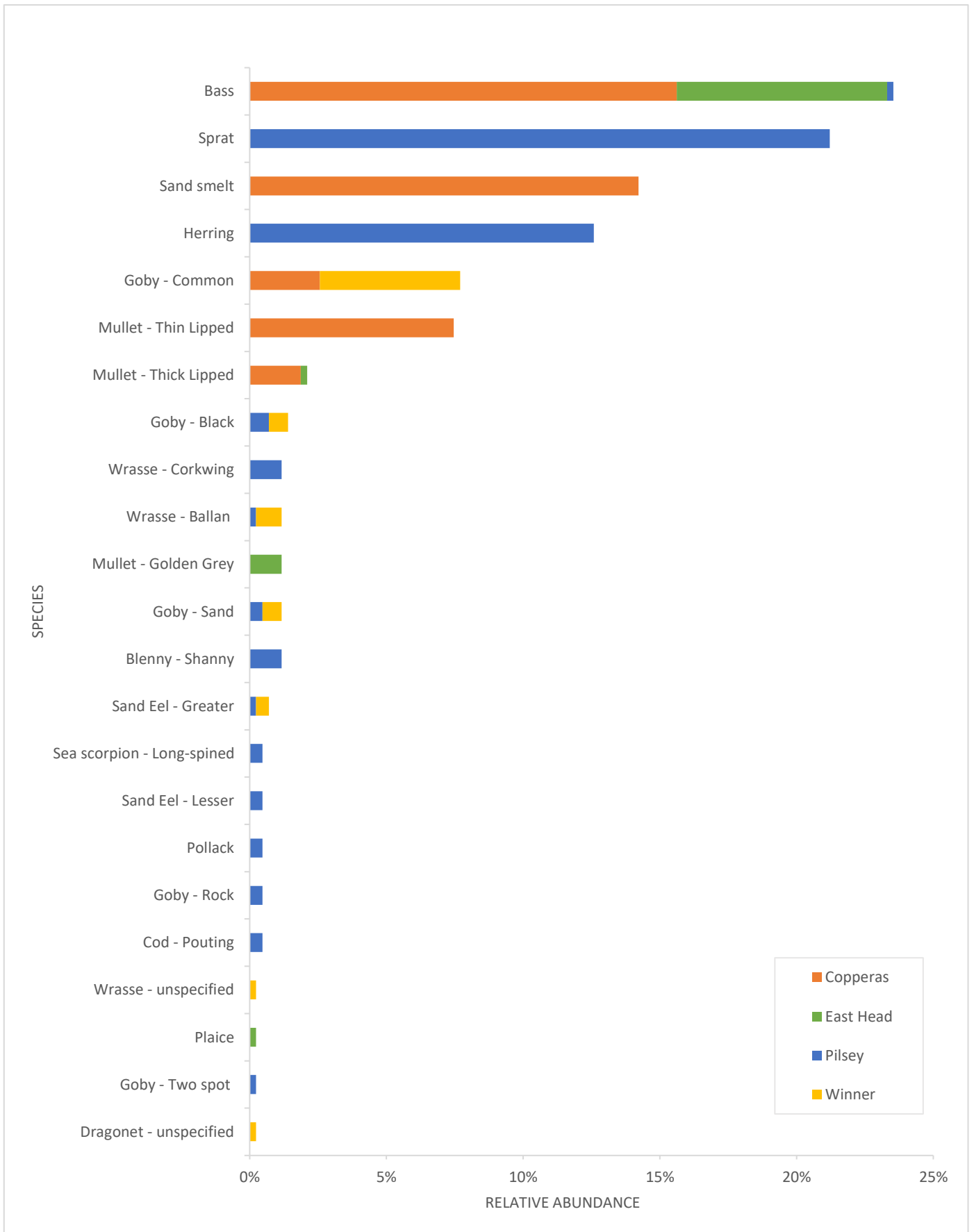


Figure 1. The relative abundance of each of the species found in 2022, all sites combined.