

### Fish Assemblages in Seville Supply Reservoir System: Implications for Management in a Water Scarcity Scenario

<sup>1\*</sup>Reyes, I., <sup>2</sup>Monteoliva-Herreras, A, P., <sup>3</sup>Orduna-Marín, C., <sup>4</sup>Rodriguez-Ruiz, A. & <sup>1</sup>Escot, C.

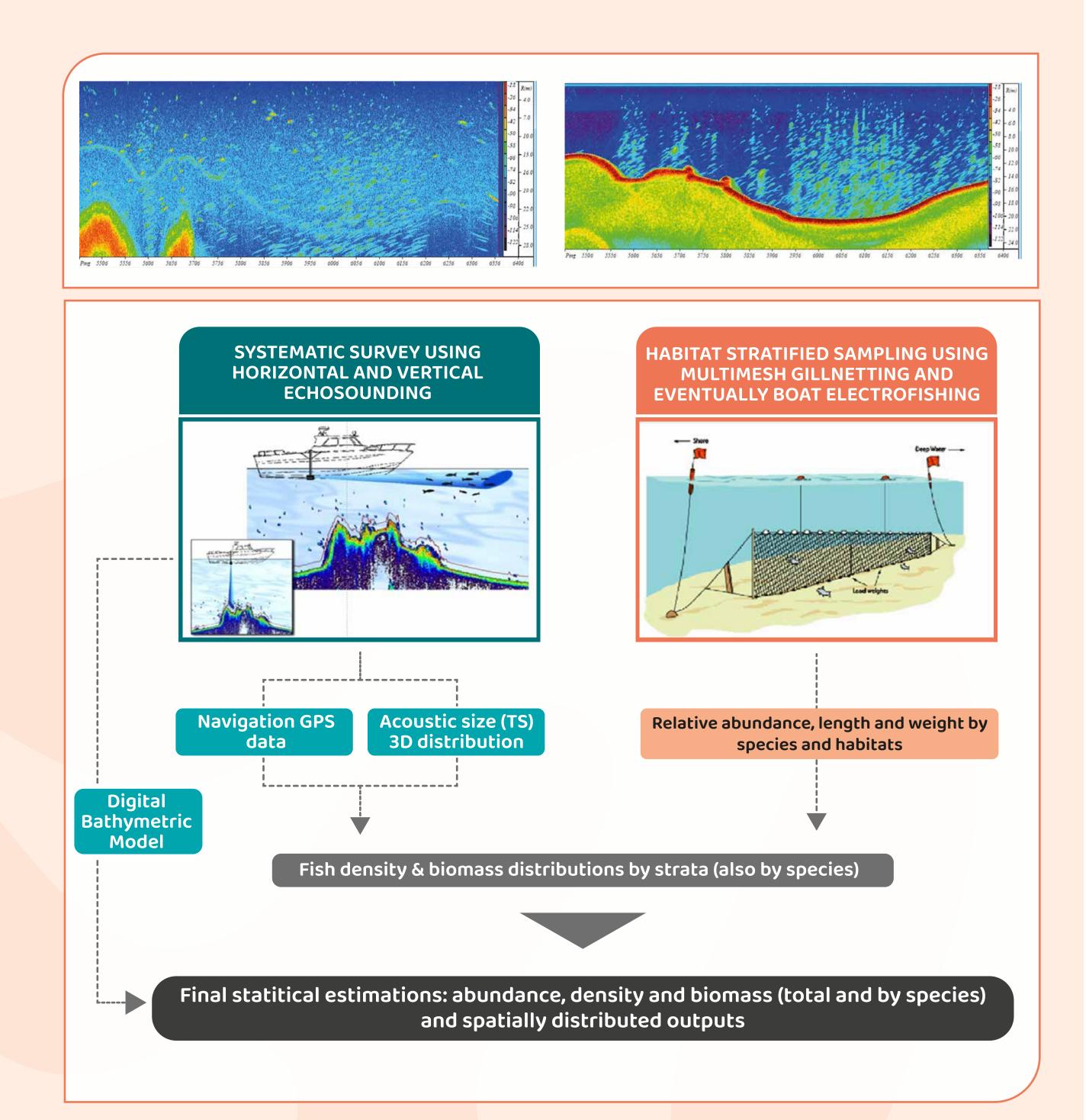
- <sup>1\*</sup> Lead presenter: eirbarbara@emasesa.com
- <sup>1</sup> Empresa Metropolitana de Abastecimiento de Aguas de Sevilla (EMASESA), Spain
- <sup>2</sup> Ecohydros, Spain
- <sup>3</sup> EcoFishUS, Spain
- <sup>4</sup> Universidad de Sevilla, Departamento de Biología Vegetal y Ecología, Spain



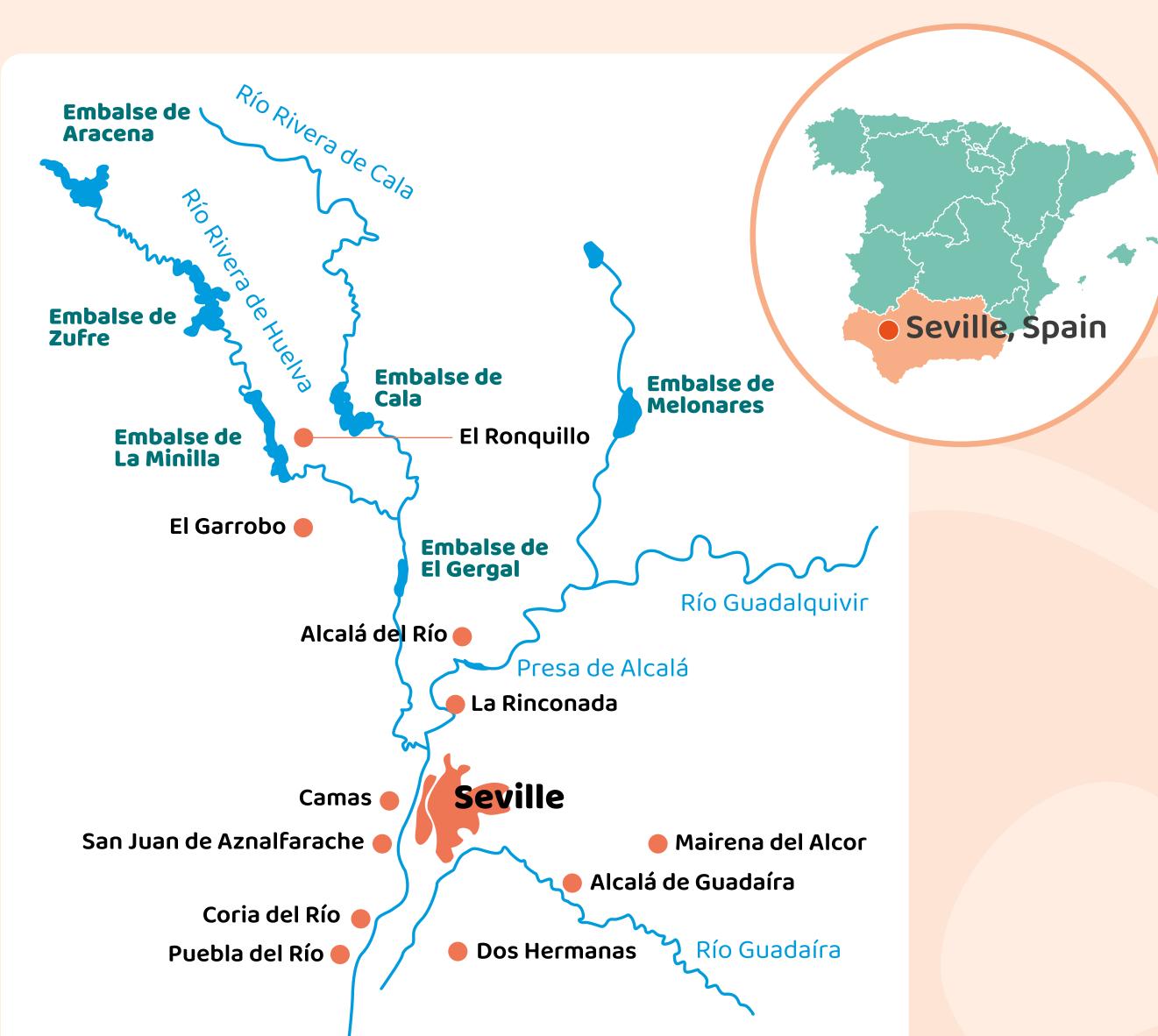
## **PINTRODUCTION**

**During the current dry period**, with low rainfall since 2019, the management of the reservoirs is more complex due to the reduction in the volume of water stored and the alteration of its quality. The fish fauna of the reservoirs is a factor to be considered in the management and therefore in 2022 the Metropolitan Water Company of Seville

## METHODS AND MATERIALS

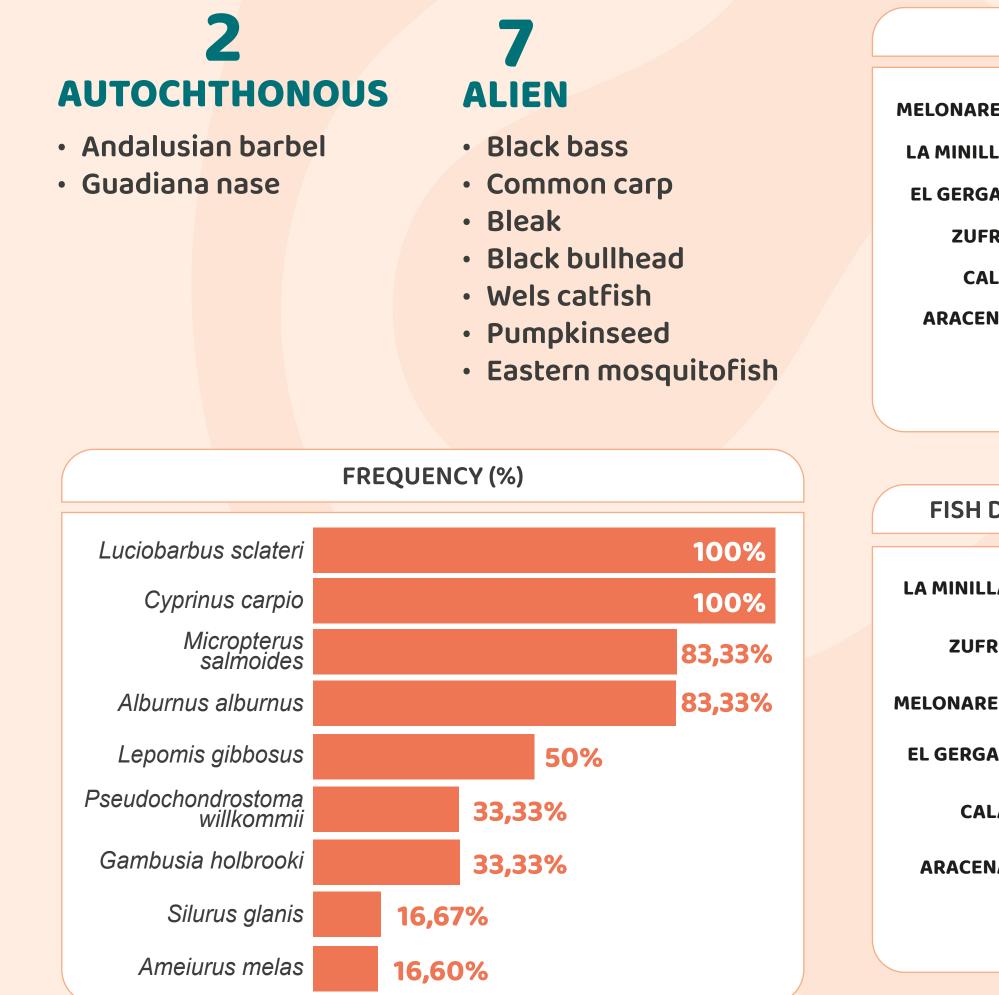


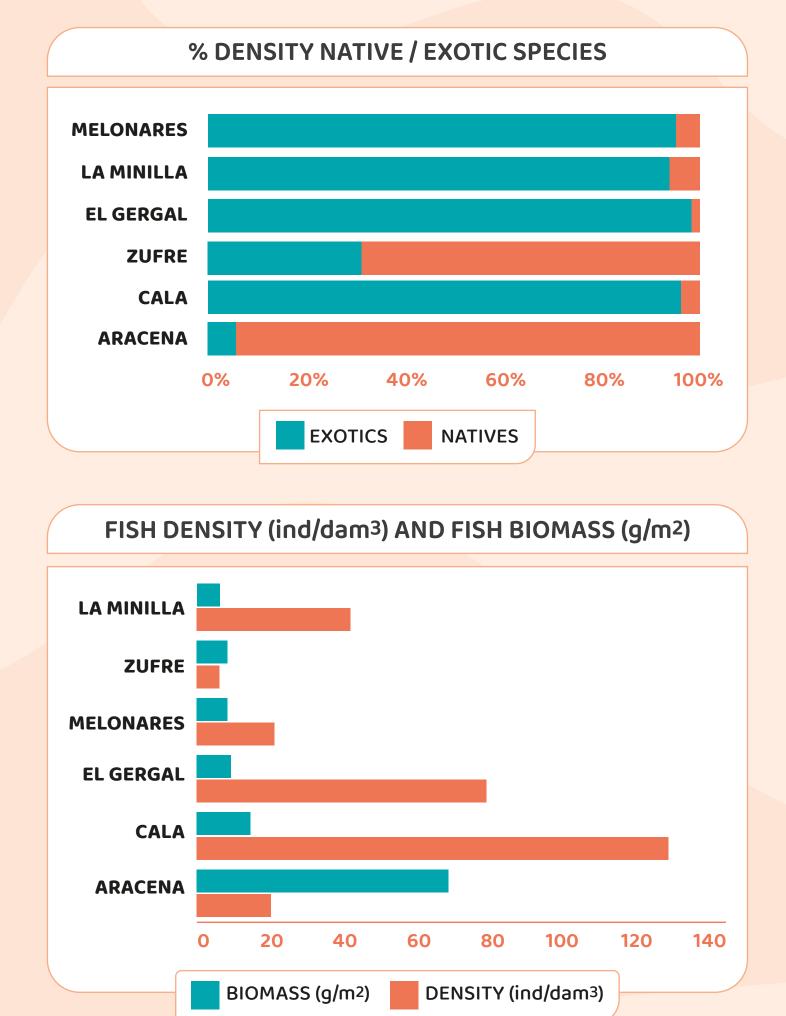




#### EMASESA: Supply Map

# **RESULTS** Species were identified





## **CONCLUSIONS** S

- Fish density and biomass estimations range from 6.50 to 130.76 fish/dam<sup>3</sup> and from 5.98 to 69.78 g/m<sup>2</sup>, respectively.
- Exotic species densities exceed 80% in 4 of the 6 reservoirs.
- Cala is the reservoir with the highest density, while
  Aracena is the reservoir with the highest biomass.
- Silurus glanis is the exotic species recently introduced in one of the supply reservoirs.
- The methodological approach used in these studies has provided useful insights into the abundance, biomass and composition of fish assemblages in reservoirs, and could be used to develop adaptive strategies for the management of the reservoir ecosystems, for the control of biological invasions and environmental risks and for scientific research purposes.

 Further studies in reservoirs are recommended over the next 10 years to monitor the evolution of the fish assemblages and their response to the management actions and the water storage and use schedules.











