



ARPA FVG

Agenzia Regionale per la Protezione
dell'Ambiente del Friuli Venezia Giulia

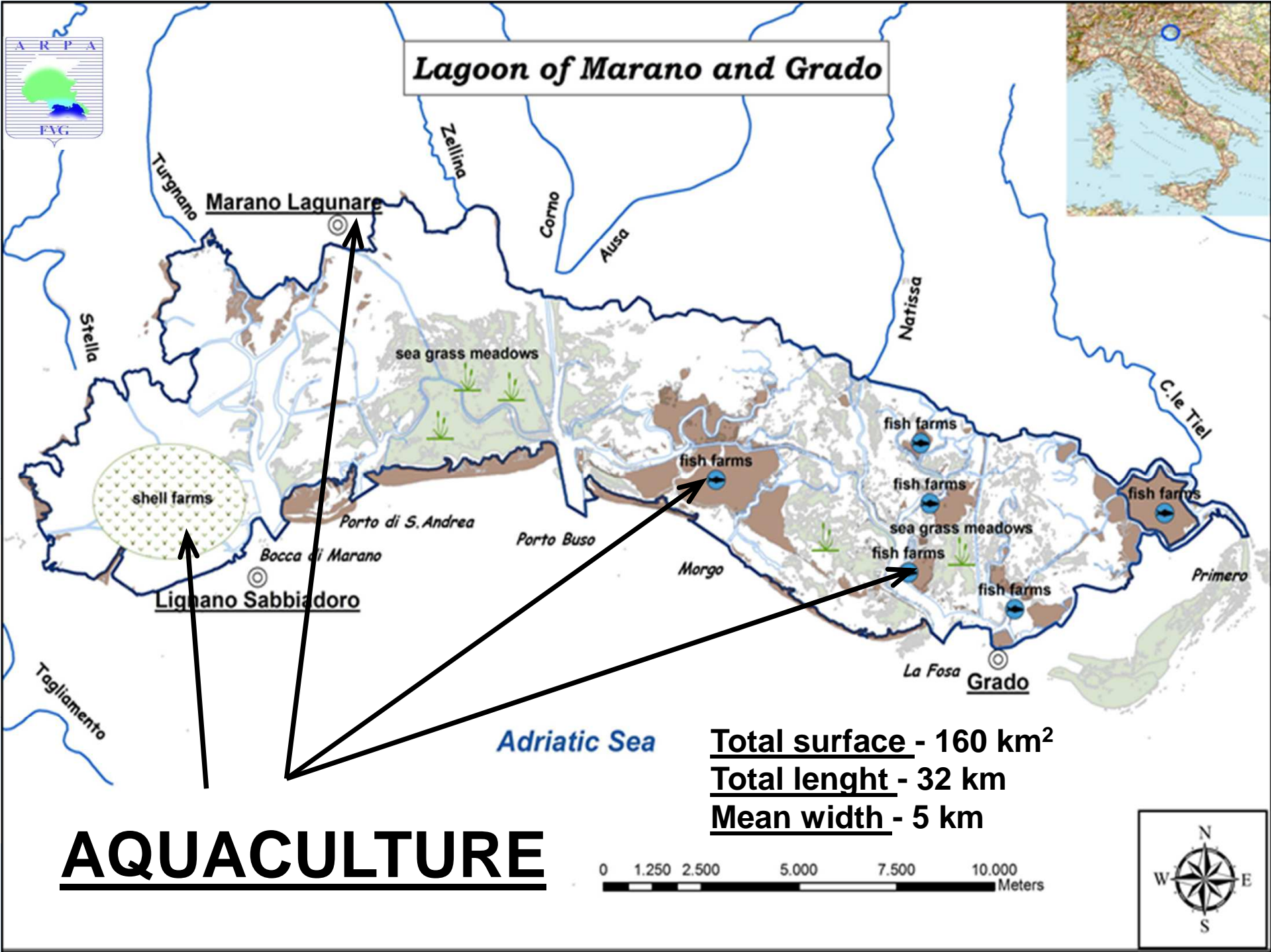
The fishery in the Marano and Grado Lagoon (Gulf of Trieste – northern Adriatic Sea)

Nicola Bettoso

Nicosia Initiative - Trieste 13 Giugno 2017

A millenarian historical tradition





Lagoon is subjected to constant anthropogenic activities:

- Commercial harbor and industrial activities in Porto Nogaro;
 - Several marinas for about 6,000 moorings;
 - Dredging of main waterways and channels;
 - Fishery, aquaculture and clams harvesting;
 - Intensive agriculture in the watershed;
- ◉ Lagoon includes sites for the protection of wildlife migration and submitted to the **Ramsar Convention** by 1971. Following the application of the **Habitats Directive** by Presidential Decree No. 352 concerning the protection of biodiversity, the entire perimeter is included among the **Sites of Community Importance (SCIs – IT3320037)**.



LAGOON FISHERIES FLEET



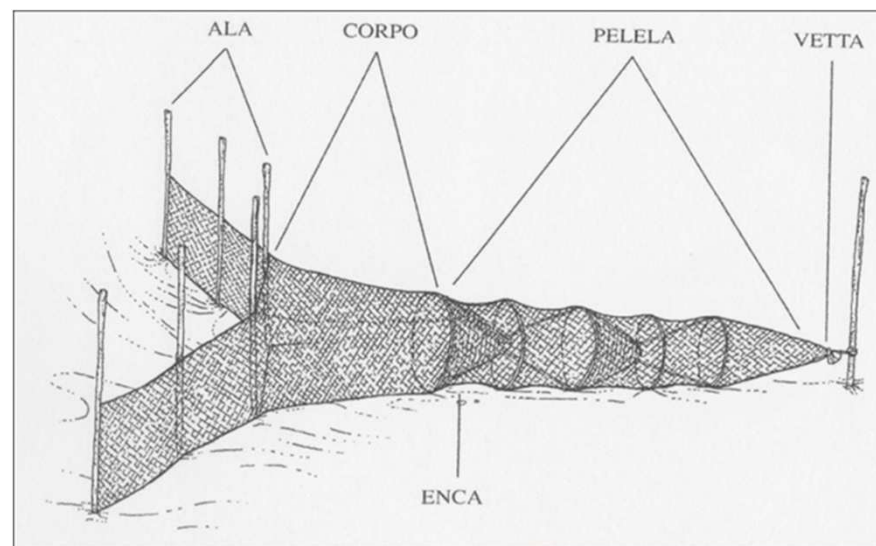
> 200 FISHERMEN EMPLOYED
IN ARTISANAL FISHERY AND AQUACULTURE
IN MARANO LAGUNARE AND GRADO



BOATS ARE TYPICAL FOR
SHALLOW WATER



FYKE NETS



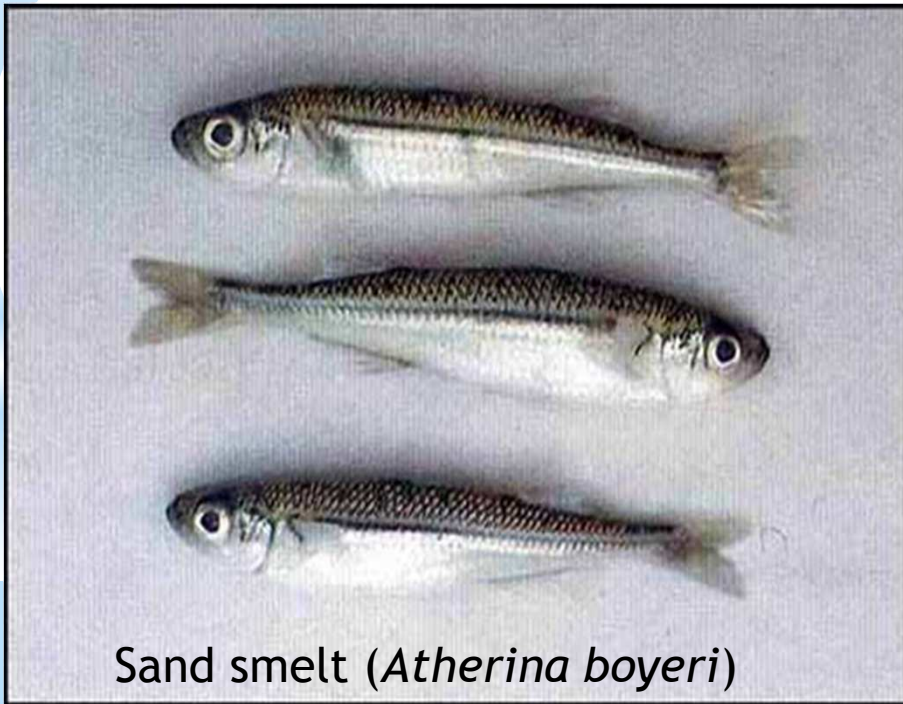
Baltic prawn (*Palaemon adspersus*)



Brown shrimp (*Crangon crangon*)



Sand smelt (*Atherina boyeri*)





Eel (*Anguilla anguilla*)

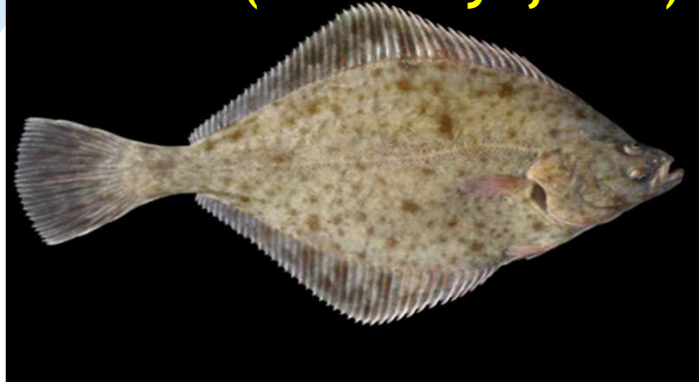
Sea bass (*Dicentrarchus labrax*)



Common sole (*Solea solea*)



Flounder (*Platichthys flesus*)



Grass goby (*Zosterisessor ophiocephalus*)



Mullet (*Mugil* spp.)



Fish traps for grass gobies





Trammel and gill nets



Baited long-lines



Cuttlefish traps



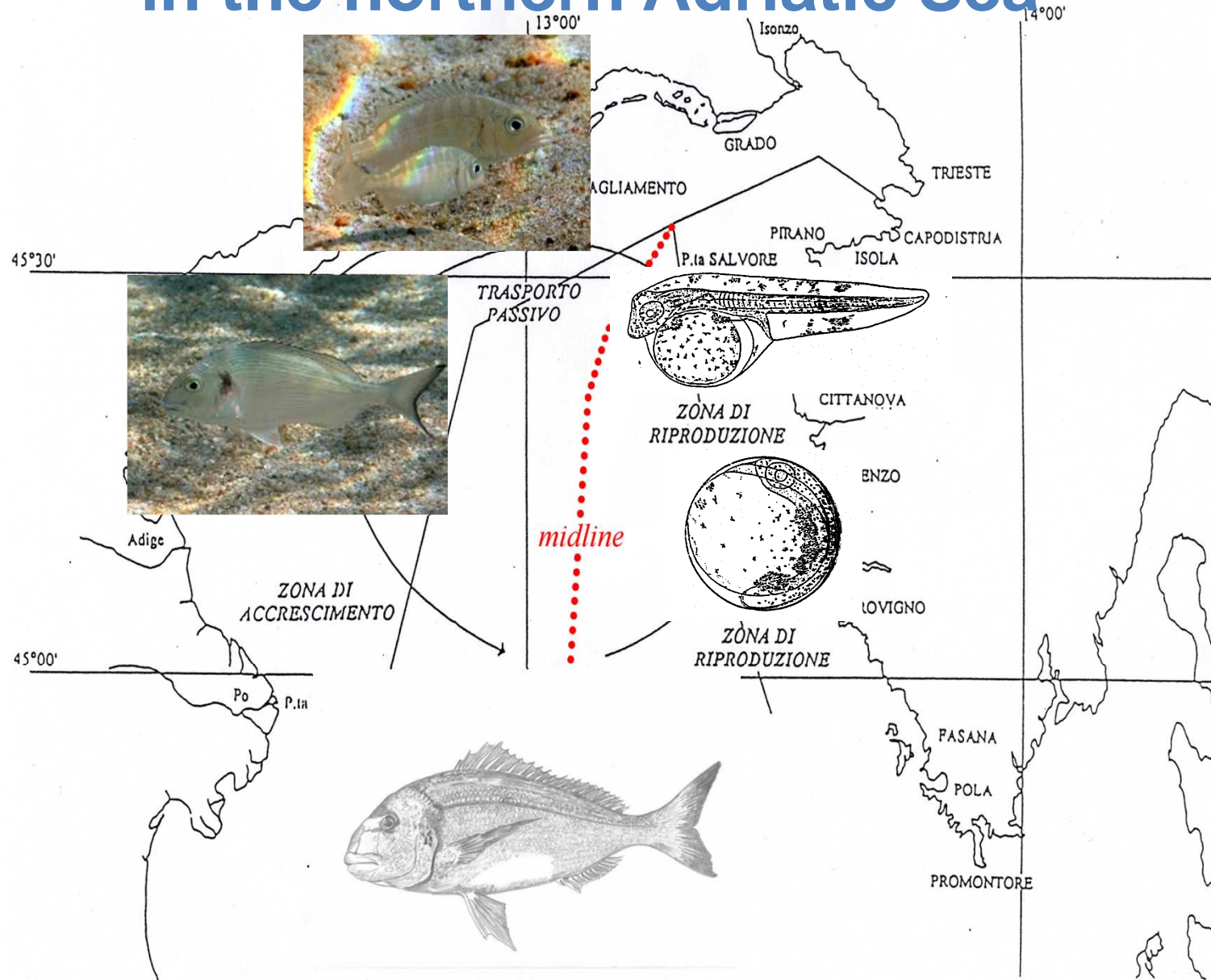
Moulting crabs (*Carcinus aestuarii*)



Seine for juveniles sea bream (*Sparus aurata*)



Migratory cycle of sea bream in the northern Adriatic Sea



Fish farm

40 fish farms with a total surface of water bodies employed for the production (514,4 ha)

15 fish farms are located in Marano Lagoon
25 fish farms are located in Grado Lagoon

Target species are sea bream (*S. aurata*) and sea bass (*D. labrax*), whereas a limited production of mullet (*Mugil spp*) and eel is conducted too. Farm of other species like shi drum (*U. cirrosa*) is actually under development.

Manila clam (*T.philippinarum*)

In 1986 was introduced for aquaculture purposes in the Marano Lagoon

Due to the spreading, the massive abundance, the easiness of harvesting and the considerable market of this species, the traditional fishery was almost dismissed



Manila clam (*T.philippinarum*)

In 2007 the use of the rake was forbidden.

Actually, 96% of the production derived from aquaculture from 652 ha of surface (1,660 tonn in 2015); in this area a multifunctional vessel is employed for harvesting, seeding and removal of oyster shells.



Grazie شكر

