

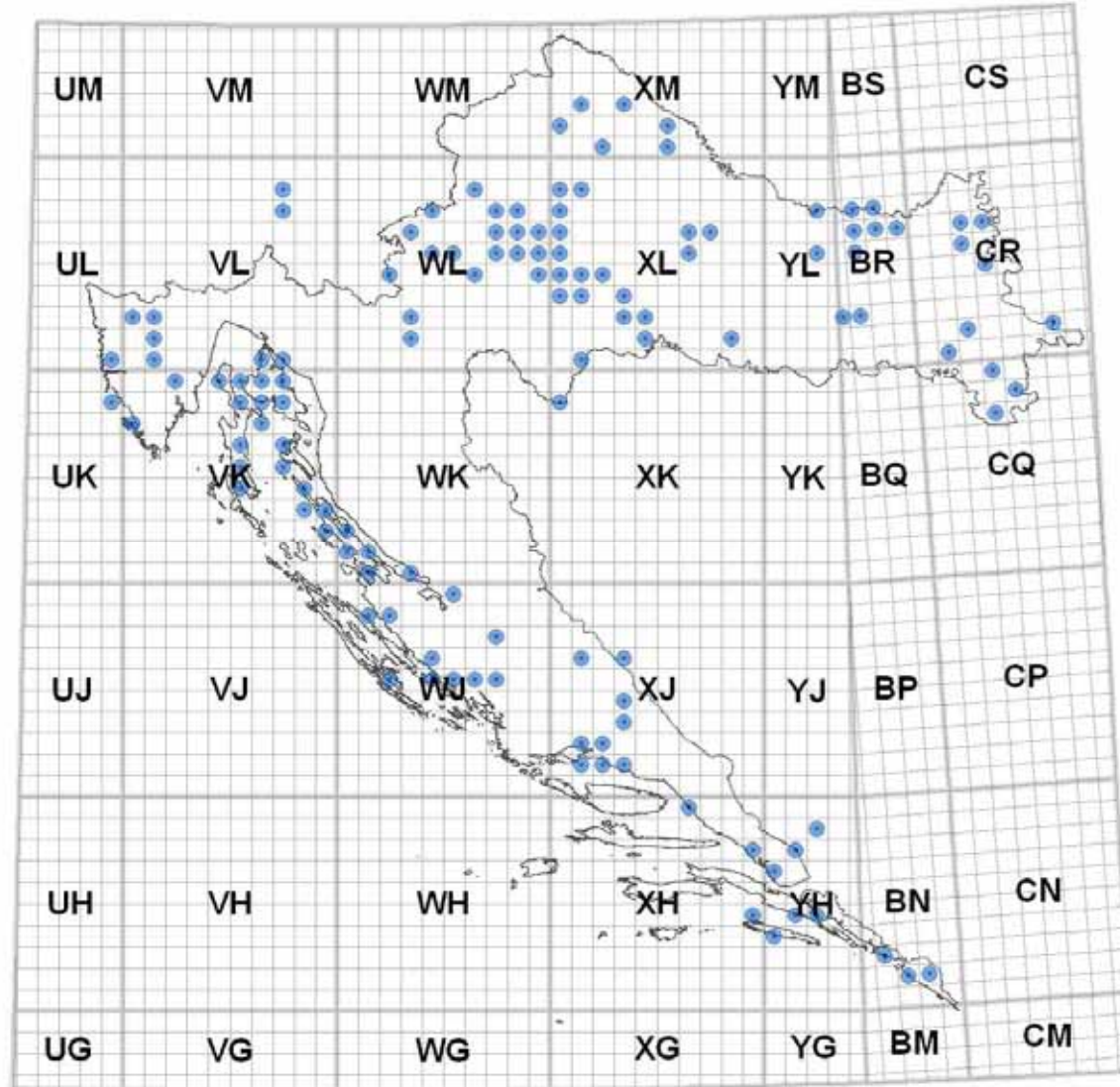


Emys orbicularis in Croatia



Toni Koren
Croatian Herpetological Society - HYLA

Distribution



Legislation in Croatia

- croatian law
 - strictly protected
 - national red list: NT



Threats

- habitat loss
 - (Konavočica, Stonsko Polje)
- isolation of populations
- there are breeders acknowledged
by the ministry!!!



Threats sanitation

- Red Ear sliders
 - banned for import for pet trade in Croatia
 - wild populations of abandoned animals are not regulated
- we are working on banning the import of the rest of *Trachemys* for pet trade



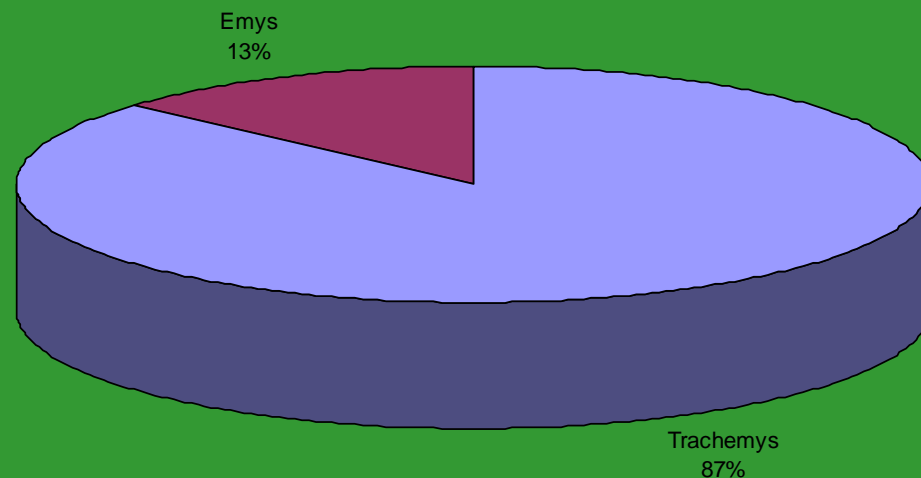
Trachemys scripta

Recent work done on *Emys orbicularis* in Croatia



Maksimir Park

- started in 2006
- competition with *Trachemys scripta*
- search for breeding sites
- **hatchlings found!**



Estimated population size
in Maksimir ponds: 12



Research on *Emys*

- Sovsko lake in Slavonia
- healthy, stable population
- approximately 40 individuals



Balkan Terrapin
(*Mauremys rivulata*) in Croatia



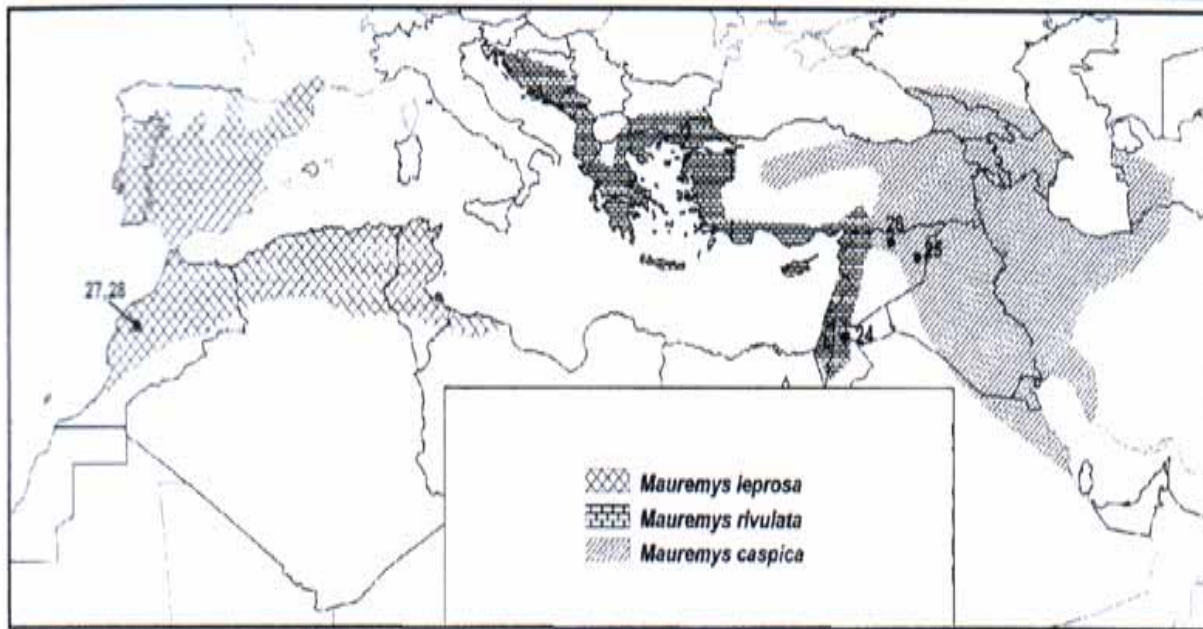
Introduction

Status in Croatia:

- Red List: CR A2ac; B2b (iii, iv)
- Bern convention - Appendix II
- EU Habitats Directive (92/43/EEC) - Annex II , Annex IV
- Strictly protected

Red List: globally NOT ASSESSED

Most of the countries note decline:
Greece, Turkey, Bulgaria, FYROM...



National monitoring program since 2004!

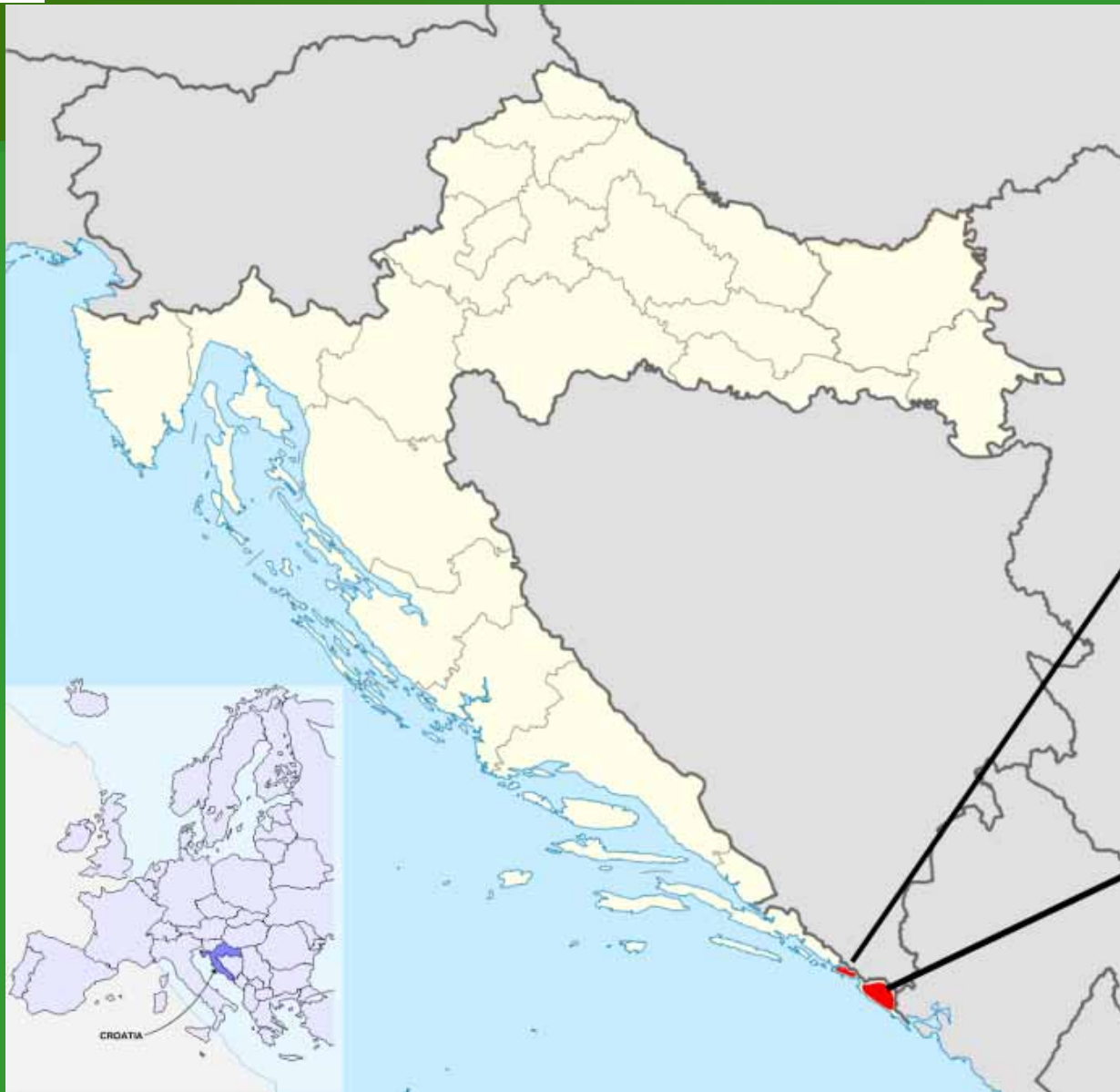


Habitat

- Mediterranean lowland water bodies (800 m)
- can also be found in brackish water
- tolerates different water speed, temperature, salinity, pH...
- prefers habitats with dense vegetation



Distribution in Croatia



Ston & Majkovi

Konavle

Ston field



The Ston population

- most northern locality
- isolated population
- irrigation ditches
- brackish water
- competition with *Emys orbicularis*



Problems

- high pollution:
 - fungicides (Cu)
 - pesticides
- high mortality in fish nets
- Inadequate unorganized management of ditches and ponds
- less than 5% of all *Mauremys rivulata* in Croatia!
- no juveniles!



Is there a solution?

- captive breeding program in Zagreb ZOO (2008)
- habitat restoration – 2 possible refugium areas
- Education + regulations – fish nets, pesticides...



Majkovi



Majkovi ponds

- secondary karstic ponds
- constant need of pond management due to succession
- allochthonous species – *Gambusia*, mungos, wild boar
- tourism



What did we do?

- cleaning of the ponds (habitat restoration)





2004.

2005.

first pond



2006.

second pond



2007.

2008.



What did we do?

- cleaning the ponds (habitat restoration)
- education
- monitoring

Future plans:

□ herpetological reserve



Konavle



Konavle field

- river Konavočica

- natural and channalized parts of river bed

- drainage canals
- irrigation canals

- *Emys orbicularis*





Problems

- pollution (pesticides, illegal landfills...)
- river bed management (concrete bottom, channalizing, gravel extraction...)
- lack of interest from local population
- need for education!!!



Future plans

- MONITORING
 - All 3 populations
 - Nesting sites, homerange
 - Population changes
 - Habitat quality (toxicology, microhabitat requirements)
 - Mongoose, wild boar
- MANAGEMENT PLAN
- CAPTIVE BREEDING
 - Ston population
- HABITAT RESTAURATION
- RESEARCH
 - Fittnes (algae, shell-rot, parasites)
 - Inbreeding
 - Reproduction biology

We're open for
collaboration!!!





**Thank you for your
attention!**