

LOMBARDY ARCADIA PROJECT: INITIATIVES AND PROPOSITIONS FOR THE CONTROL OF THE RED-EARED POND TURTLE (*Trachemys scripta*, Schoepff).

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Summary

Eight years after the beginning of regional mapping program to define the status and distribution of Herpetofauna in Lombardy, it was observed that signals of *Trachemys scripta* were much more numerous than those of *Emys orbicularis*.

For this reason and for many "arrangements" requests for other specimens of this species, we have tried to control the movements of the Red-Eared pond turtle over regional territory and to discourage the purchase putting in action a specific projects that forecasts:

1. individualization of urban or seminatural water pools that are well delimited, easily to watch over, with covers and the right feeding, where the animals can be assembled;
2. publication of telephone numbers and addresses of gatherings centers where applying, if it's impossible to breed, *Trachemys*;
3. search of alternative domestic residence for the younger animals;
4. conferences, articles on specialized reviews, press-bulletins to reduce the turtles' purchase and the following forsaken;
5. loose specimens' capture in natural places;
6. collaborator's search for the management and control of *Trachemys*' groups in stalling.

The ARCADIA PROJECT is actually co-ordinate by Centro Studi Erpetologici "Emys" of Società Italiana di Scienze Naturali in Milan and it has contribution from some organizations and associations and it has logistic and operative support from the Civic Aquarium of Milan.

Introduction.

Turtles of the genus *Trachemys* are medium to large size animals, attaing 120 to nearly 350 mm in length. The females are usually somewhat larger than males.

There are five species in the genus: *Trachemys decussata* (Gray, 1831) is found in Cuba, the Isle of Pines and the Cayman Islands; *T. terrapen* is known only on Jamaica; *T. stejnegeri* (Schmidt, 1928) is distributed in Puerto Rico, northern and eastern Hispaniola, Cuba, the Isle of Pines and the Bahamas; *T. decorata* (Barbour & Carr, 1940) is known only on the island of Hispaniola in Haiti and the Dominican Republic in the Caribbean; *T. scripta* (Schoepff, 1792) has a rather wide distribution in the eastern and southern United States of America, Mexico, Central and South America and a long history of introduction elsewhere (Gasperetti J., Stimson, Miller, Ross, Gasperetti P., 1993).

Trachemys scripta elegans (Wied, 1839) is the subspecies which interests Italian trade; it is a native of the Mississippi River, from Southern Michigan to the Gulf of Mexico, eastward to Ohio, Kentucky, Tennessee and Alabama, then westward to eastern Nebraska and Kansas, most of Oklahoma and most of Texas. Males are more slight than females, the tail is longer and thicker, claws on the forefeet are unusually long. Carapace is ovate, moderately domed, less in females. Usually in adults carapace is longer than 200 mm (243 mm is the longest one observed in the studied animals until now). They lay about 10 eggs; the young are carnivores, becoming more omnivorous with maturity.

Trachemys problem

By official number taken from the National Foreign Trade Ministry, it has been calculated that about 900.000 small *Trachemys* turtles are imported in Italy every year.

The number of turtles which come in Lombardy, the region where there is our Centro Studi Erpetologici and where it does the most important part of its activity, is about 300.000 every year.

Fortunately or unfortunately (it depends from the different point of view: man or animal) the most part of them don't get over the first breeding year. This is due both to the fact that the elementary rules of breeding are not observed, and to the general disinformation in this field.

In fact their breeding is shown from the great part of pet shopkeeper, as one of the easier and almost never they remember to the potential breeder that they are very young specimen of a species which as adult can reach 25 cm of length and get over one kilo of weight.

Nevertheless a percentage of them (about 30% in Lombardy) can live and grow both for the ability of the breeders and for some good combinations. The disinformation about the problems due to the size increasing (as necessary space, filtration and cleaning of the water, feeding, etc.) and the high cost for the necessary equipment (for example you can not easily find plastic aqua-terrarium) cause, as for other pet, a notable case of abandonment.

A lot of forsaken *Trachemys* specimens are put in more or less natural damp places (Giuliano, 1988) without considering the possible negative interrelations of these exotic species with our fauna, in particular with the European pond turtle, *Emys orbicularis*, which still live in different country of Lombardy (as it has been shown in Table nr. 1).

Moreover *Trachemys* themselves, if bred in good temperature and feeding conditions, don't use to the environmental difficulties, dying in few months (White, 1986).

The uncontrolled abandonment is not easily avoidable even if some Italian regions made precise prohibition and expressly fine at this regard.

Tab. 1. Finding of *Trachemys scripta* (more than 5 specimens) in parks and preserves in Lombardy. (Research 1988-1995, Centro Studi Erpetologici S.I.S.N.)
CO Como, MI Milan, BG Bergamo, BS Brescia,
MN Mantova, CR Cremona, PV Pavia

Lago Montorfano (CO)	Idroscalo-Laghetto Vergini (MI)
Parco del Mincio (MN)	Valli del Mincio (MN)
Parco Nord Milano (MI)	Parco Agricolo Sud Milano (MI)
Lago Sartirana (CO)	Lago Alserio (CO)
Torbiere Iseo (BS)	Lago Pusiano (CO)
Parco del Ticino (MI-PV)	Confluenza Lambro-Po (MI)
Fontanile dei Frati (MI)	Parco Adda Nord (BG-CO-MI)
Parco Adda Sud (MI)	Parco Valle Lambro (MI)
Parco Groane (MI)	Riserva Le Bine (CR-MN)
Parco dell'Oglio (CR)	Parco del Serio (CR)

Arcadia Project

During eight years of studies, to define the condition of the lombard population of European pond turtle (*Emys orbicularis*), it has been verified that most of the received signalling (> 70%) was about *Trachemys scripta* specimens indiscriminately abandoned in different damp places studied. For this reason and for many "arrangements" requests for other specimens of this species, it has been tried to give a rule to the shift of these animals on the regional field and to discourage the purchase putting in action a specific project.

The operative phase of this project called "ARCADIA LOMBARDY PROJECT" from the first official place of study and immission, are the following:

- A shrewd divulgation of the telephone number and addresses of the centres which accepted to collect *Trachemys* given up for a real impossibility to feed and to breed them (to avoid a big abandonment).
- Research of an alternative domestic arrangement for the younger forsaken specimens; sanitary care in tanks and rooms of the Civic Aquarium of Milan for debilitated or with evident diseases animals (asking, if possible, a contribution from the breeders).
- Searching of artificial or seminatural urban water pools, well delimited and easily guarded, with covers and the right feeding, where stalling the abandoned specimens.
- Conferences, articles on specialized reviews, press-bulletins to rend more conscious the pet shopkeeper and the potential buyer, to reduce the abandonment.
- Research of collaborators and economic sustainements for management and controls of *Trachemys* groups, stalled in places of release or for the ones recovered for necessary cares.

Further more, these are the steps followed to reach the goal.

1. How the releasing places have been focused.

- The damp places must be almost large and with good environmental condition (there has not to be too much aquatic semidomestic avifauna).

- It's not possible to have too much strict contact between animals and visitors, so there enclosures are necessary or to forbid the entrance at least on one part of the water pools.

- If other turtles of the same species are already present, they will be censused to decide the possibility for a subsequent immission. This fact, above all if they are there from several years, will prove that the place can give good invernall refuge, food enough, warm zones, etc.

- Fishes of different sizes must be present to give the chance to the turtles to capture the weaker and sick of them.

- Researchers and their collaborators must have an easy access (near to Milan, where there are the centres).

2. What kind of study are performed.

In the preparatory phase:

- Verify of the ecological power of the area for the life of the present turtles.

- Evaluation of the potentiality of the area for new controlled immission.

- Request for the licence from the owner of the area to access and to do the forecast activities:

observations of the conduct;

search of turtles laing;

capture of turtles; control of the marked animals;

permit to move turtles from one to another area after a right census and correct environmental evaluation;

temporarily collection, in special tanks or ponds, of the turtles which have been found sick or given from private breeders for quarantine.

In the active phase:

- Capture as more as possible of the turtles, their marking and count and census with an identification card;
- preparation of one or more posters about the biology and the problems of the species inviting the visitors to give animals that they don't want anymore to the responsible of the area or to the researchers;
- right divulgation to explain to the breeders problems and rules about their abandonment by articles on local papers and conferences;
- collection of environmental (distribution and preferences, trophic possibility, real or potential predators, etc.) meteorologic (water/earth temperature in relation with turtles shifts; atmospheric conditions) and chemicals/physical (PH Nitrates, hardness etc) parameters;
- sanitary control of the turtles and removal of sick or debilitated animals (possibility to recover them in near structure or directly in the Civic Aquarium of Milan).

Sponsors' research

Economical support will be assured at first by pleader centres but new forms of sponsor are needed to fully reach the aims. For this reason official contact are already started with trading Italian representation of TETRA and JBL, both very interested to the freshwater turtles problems. Economical support is necessary to provide

- cost refund for people which work for the capture, temporarily stalling and arrangement of *Trachemys*;
- the purchase of codified or numbered plastic cards for the marking;
- the purchase of tanks and equipments for the temporarily stalling of young or sick or wounded animals;
- medicines purchase;
- artificial integrative feeding of naturalized groups;
- the printing and capillary distribution of a brochure about the biology, the necessity and the breeding problems of *Trachemys*;
- participation in national and international congress about problems management and preservation of Chelonians.

Centres involved in the Arcadia Project

Lombardy Arcadia Project is actually co-ordinate by Centro Studi Erpetologici of Società Italiana di Scienze Naturali in Milan, but it has the logistic and operating help of Civic Aquarium of Milan, of E.N.P.A. of Milan, of L.A.C. Lombardy and of W.W.F. Lombardy.

At least in a part of the project are involved also:

- AMICI DEL PARCO ARCADIA Association
- Ecological Volunteers Guards of Lombardy Region
- Preservation Committee of SOCIETAS HERPETOLOGICA ITALICA.

The centres available to face the more difficult part of the project, as to collect signalling about abandoned turtles, will try to contain these shifts and abandonment over the regional territory, and will always precisely give times and hours of this service.

Future purposes.

Knowing that the Project, even if well organized, will not go on endlessly (going on with the actual release rhythm, in few years all the available bogs will be saturated) our Centro Studi Erpetologici and the other ones involved are already operating to obtain that at national, and better at international level will be take the no more liable to deferment decision to:

1. 1. LIMITING THE TRADE (reducing numbers of imported animals, reducing centres qualified to sell them with accurate sanitary rules and of breeding, forbidding their free distribution in fairs and Luna-parks)
2. 2. DISCOURAGING THE PURCHASE (increasing the prices; divulgation of breed problems)
3. 3. FORBIDDING THE INTRODUCTION IN NATURE (with regional and national rules)
4. 4. ENGAGING AMERICAN FARMS FOR THE COMING BACK OF ADULT ABANDONED TURTLES (charging this cost on the sale price and founding official collecting centre in buyer Countries, able to get over to the sanitary problems given by U.S.A. rules about the importation of life animals).

References

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White C.P., 1986 - Freshwater Turtles. National Geographic, 169 (1) Jan/1986 pp. 40-59

INTERNATIONAL CONGRESS OF CHELONIAN CONSERVATION

FRANCE - GONFARON - Tortoise Village - 6th to 10th of July 1995

Proceedings



Astrochelys yniphora is the rarest tortoise in the world. Reared at Ampijoroa, in Malagasy, and at St Catherine Island (in this photo), its total strength never exceed a few ten individuals in captivity and a few hundred ones in the wild. An excellent conservation programme concerns this animal, leaded by the Jersey Wildlife Conservation Trust and the Wildlife Conservation Society. Nevertheless, at the beginning of may 1996, part of the tortoise populations (adults and juveniles) have been stolen at Ampijoroa, flying specialists into a rage and disappointment. So, this tortoise is a symbol, by its scarceness, by the efforts made to protect it, and by the threats which hang over it, of the difficult conservation of the tortoises in the world.

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