

## COLLECTION QUOTAS AND THE CONSERVATION OF MEDITERRANEAN TORTOISES

GARY S. CASPER

*Section of Vertebrate Zoology, Milwaukee Public Museum, 800 W Wells St., Milwaukee, WI 53233, U.S.A.*

Drastic population declines have been noted for many species of tortoises worldwide and have led to the establishment of the IUCN Species Survival Commission Tortoise Group, whose inaugural meeting was held in Oxford, England, in 1981 (Swingland, 1981). Conservation measures seem long overdue for the Mediterranean tortoise species (Swingland, 1984) and numerous workers are gathering the information necessary for implementing such measures effectively. At the 2nd European Chelonian Symposium, Proceedings A of which were published in *Amphibia-Reptilia* 5(1), March 1984 (the journal of Societas Europaea Herpetologica), habitat destruction was not surprisingly identified as the major threat to tortoises. Hopefully, the various herpetological and conservation groups will be effective in persuading governments to set aside tortoise preserves.

The secondary issue of bulk trade collection has been addressed by Lambert (1984), Cheylan (1984) and in the Concluding Remarks of the chelonian symposium, a ban was called on collecting, an extreme measure which may not be justifiable, especially since the intermediate step — the establishment of harvesting quotas as with game animals — seems not to have been and frequently are more beneficial to the protected species. Establishment of quotas would reduce availability and drive prices up. With a much greater value placed on the animals, concern for their quality (health) is correspondingly greater, and shippers can be expected to and required to provide proper care. Similarly, buyers will be much more concerned with the welfare of their charges. Educational potential is not only preserved but enhanced by greater public interest.

Concurrent with quotas is the establishment of very harsh penalties for smuggling, so as to make smuggling unattractive when legal trade is available. This is often more effective in halting black market trade than is a total ban. Shippers recognize that it is in their best interest to ship legally and discourage smuggling, since they have the option (why take the risk?), and thus protect their livelihood by ensuring tortoise availability.

Finally, quotas allowing limited trade do not impede the establishment of captive breeding populations, while trade bans usually do. Captive populations benefit wild populations most obviously by making animals available for re-introduction into protected habitats, research and education. Cheylan (1984) pointed out the need for breeding measures and the high reproductive potential of tortoises. This conservation tool is often precluded by regulations surrounding trade prohibitions which include captive born animals in restrictions on movement, sale and exchange. Where total bans on live trade are not coupled with *effective* habitat preservation, such bans can actually be deleterious to species survival, causing an overall population decline because of reduction or elimination of captive breeding populations. Such an effect has already been noted by many United States' breeders.

Some tortoise populations may already be reduced to the point where any collecting will be injurious and total bans are necessary. But the use of quotas before such critical population declines occur in other species should be considered before total bans on live trade, with their accompanying negative implications, are enacted. It must be emphasized that habitat protection is of the utmost importance, habitat destruction being by far the major cause of population declines. Socio-economic conditions, however, often make habitat preservation extremely difficult. This makes other safeguards, such as the establishment of captive breeding populations and a halt to injurious collecting, paramount. These safeguards can be developed simultaneously

under quota systems, but total trade bans often merely drive trade underground, whilst precluding captive breeding populations which may represent the very last hope of survival for species vanishing from the wild.

#### REFERENCES

- Cheylan, M. (1984). The true status and future of Hermann's tortoise *Testudo hermanni robertmertensi* Wermuth 1952 in western Europe. *Amphibia-Reptilia* 5, 17-26.
- Lambert, M.R.K. (1984). Threats to Mediterranean (West Palearctic) tortoises and their effects on wild populations: an overview. *Amphibia-Reptilia* 5, 5-15.
- Swingland, I.R. (1981). *A report on the Inaugural Meeting of the IUCN Species Survival Commission Tortoise Group 1-2 October 1981*. Mimeograph, 19pp.
- Swingland, I.R. (1984). Introduction. Proceedings A, 2nd European Chelonian Symposium. *Amphibia-Reptilia* 5, 3-4.