

# On the biology of the Afghan Tortoise, *Testudo horsfieldi*, in north-eastern Iran (Reptilia: Testudines)

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**Abstract:** The biology of the Afghan Tortoise, *Testudo horsfieldi*, was studied in the Semnan and Golestan provinces of Iran. Results on measurements, sexual dimorphism, reproduction, habitat, and activity pattern are given.

**Kurzfassung:** Die Biologie der Afghanischen Schildkröte, *Testudo horsfieldi*, wurde in den Provinzen von Semnan und Golestan im Iran untersucht. Es werden Daten zu Körpermaßen, Sexualdimorphismus, Reproduktion, Habitaten, und Aktivitätsmuster mitgeteilt.

**Key words:** Testudines, tortoises, Afghan Tortoise, *Testudo horsfieldi*, Iran, Middle East.

## Introduction

Ten species of Chelonians are found in Iran, including three freshwater turtles, two land tortoises, and five sea turtles (ANDERSON 1979, KAMI 1997). The non-marine turtles of Iran represent the impoverished chelonian fauna of the Palaearctic. *Emys*, the western forms of *Mauremys*, and *Testudo* are all restricted to the milder climates of southern Europe, northern Africa and south-western Asia, being essentially Mediterranean faunal elements. *Agrionemys* is a relatively ancient genus with uncertain affinities (ANDERSON 1979). Its distribution is strictly Irano-Turanian. The Afghan Tortoise, *Testudo horsfieldi*, is one of the two land tortoises of Iran. It can easily be distinguished from *Testudo graeca*, of which two subspecies, *ibera* and *zarudnyi*, are found in Iran. *T. horsfieldi* is known to occur in Iran in the provinces of Golestan, Khorasan, Semnan, and Seistan & Baluchestan.

No information on the biology and ecology of the Afghan Tortoise is available from Iran. For this study, more than 150 specimens were examined at different localities between 1997 and 1998. These include 23 specimens collected at Khoshyeilagh Wildlife Refuge near Shahroud in the Semnan Province of Iran, some specimens from Gorgan, and one from Atrek River in the Golestan province. Most of the tortoises were released after examination.

## Abbreviations

CH = carapace height; PL = plastron length; SCL = straight carapace length; SCW = straight carapace width.