



European Pond Turtles

The genus *Emys*

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Popular names

Already the popular name "European pond turtle" is actually wrong because the distribution of this reptile species extends beyond Europe. However, today the German popular name "Europäische Sumpfschildkröte" (literally: European swamp turtle) is estab-

lished in German-speaking countries and is also usually used in publications written in German. Moreover, the species does not only live in swamps as can be read in the relevant chapters of this book. Other names in European countries:

Language	Name original, transcription (and literal translation)	Countries/provinces
Belorussian		
Bulgarian	Obivknovena blatnaja kostenurka Vodna kostenurka	
Catalan	Tortuga d'estany	
Czech	Želva bahenní	
Basque	Dortoka istilzalea	
Danish	Europæisk sumpskildpadde	
English	European Pond Turtle European Pond Terrapin	
Estonian	Euroopa sookilpkonn	
French	Tortue bourbeuse oder Cistude d'Europe	
Galician	Tortuga	
Greek	Βαλτοχελώνα (Valtochelona) Τελματοχελώνα (Telmatochelona)	
Italian	Emide europea, Tartaruga d'acqua comune Testuggine d'acqua oder Testuggine palustre Testuggine palustre ingauna	
Lettish	Purva bruņurupucis	Moor turtle
Lithuanian	Balinis vřžlys	
Macedonian	Blatna shelka	

Language	Name original, transcription (and literal translation)	Countries/provinces
Maltese	Fekruna ta' l-ilma ħelu	
Moldavian		
Dutch	Europese moerasschildpad	
Norwegian	Europeisk sumpskilpadde	
Swedish	Kärsköldpadda	
Polish	Żółw błotny	
Portuguese	Cágado-decarapaça-estriada Cágado	
Romanian	Broască țestoasă de apă	
Russian	bolotnaja tscherepacha, retschnaja tscherepacha	
Spanish	Galápago europaeo	
Rhaeto-Romanic	Tartaruga da pali	
Albanian	Breshkë uji, Breshkujze Breshkujcë	
Slovak	Močvirská sklednica	
Slovenian	Korytnačka močiarna	
Serbian	barska kornatscha	
Finnish	Suokilpikonna	
Turkish	Benekli kaplumbağa	
Ukrainian	bolotna tscherepacha	
Hungarian	Mocsári teknős	

not in the European handbook:

Persian		
Arabic		Morocco. Tunesia, Algeria

The European Pond Turtle in Latvia

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THREATS:

Present situation:

In Latvia, the European pond turtle *Emys orbicularis* L. is an extremely rare species, living at the northern border of the species' range. Concerning the status of the Latvian turtles there are different opinions. BĒRZIŅŠ (2003) describes the species as already extinct.

In contrast, data of numerous turtle observations have been existing since 1820, mainly in the southern and western parts of the country (Ventspils, Dobeles, Jelgava, Valmiera, Daugavpils and Kraslava area) (SILINS & LAMSTERS 1934, TRAUBERGS & TRAUBERGS 1942, PUPINŠ & ŠKUTE 1992, PUPINŠ & PUPINŠ 1996, PUPINŠ 2005, MEESKE et al. 2006). Between 1820 and 1932, more than 40 turtles including one juvenile were observed (SILINS & LAMSTERS 1934), and between 1970 and 2005, a total of 58 individuals including six juveniles were observed (PUPINŠ 2005, MEESKE et al. 2006). Different authors believe that all European pond turtles recorded in Latvia are animals intentionally released or released by mistake. These authors also assume that a successful reproduction under natural conditions is impossible in Latvia (SILINS & LAMSTERS 1934, TRAUBERGS & TRAUBERGS 1942, LAPINA 1974, CAUNE 1992). However, there are indications of the existence of several small turtle populations and a few natural reproductions, considering the documented observations previously cited. In addition, the presence of ancient Latvian names for the species (*Brunu rupucis*, *Kaulu rupucis*, *Rupucis*) during a long historical period supports the idea of natural Latvian populations (SILINS & LAMSTERS 1934, TRAUBERGS & TRAUBERGS 1942, PUPINŠ & ŠKUTE 1992, PUPINŠ & PUPINŠ 1996, PUPINŠ 2005, MEESKE et al. 2006). As well as in other countries, the existence of some single allochthonous turtles can certainly not be excluded completely at present. Altogether, the current knowledge on the situation of the Latvian turtle populations is still insufficient, e.g. there is no evidence of persistent populations.

Predation on eggs:

No direct information is available. Presumptive predators of clutches are foxes (*Vulpes vulpes*), wild boars (*Sus scrofa*) and racoon dogs (*Nyctereutes procyonoides*) (PUPINŠ & ŠKUTE 1992).

Farming activities and agricultural machines may destroy nests located on fields and meadows (PUPINŠ pers. obs.).

Predation on juveniles:

No information on predation in the wild is available. Possible predators of young turtles are racoon dogs (*Nyctereutes procyonoides*), foxes (*Vulpes vulpes*), domestic dogs (*Canis lupus familiaris*), otters (*Lutra lutra*) and large water birds which are widespread in regions where juveniles have been recorded (Dobele and Kraslava area) (PUPINŠ & ŠKUTE 1992). One juvenile (carapace length < 10 cm) kept in an outdoor terrarium of the zoo has been captured by a hooded crow (*Corvus cornix*) (PUPINŠ pers. obs.).

Human activities e.g. drainage and cleaning of water bodies can be dangerous for young turtles.

Predation on adults:

Various mammal species e.g. foxes (*Vulpes vulpes*), racoon dogs (*Nyctereutes procyonoides*), domestic dogs (*Canis lupus familiaris*), otters (*Lutra lutra*) and wild boars (*Sus scrofa*) are potential predators of adults (PUPINŠ unpubl. data). The carapax of a turtle has been found near the den of a racoon dog (*Nyctereutes procyonoides*) (PUPINŠ & ŠKUTE 1992). A sheep dog has attacked an adult male of *Emys orbicularis* in an outdoor terrarium damaging carapax and plastron (PUPINŠ pers. obs.). Similar damages to carapaces have been found on turtles in the wild. Twenty-two captured adult turtles had different injuries which may have been caused by predators: eight animals (36%) had scars on carapax or plastron, one animal (5%) had a leg and four animals (18%) the end of their tail missing respectively. During their overland migrations, tur-

tles are in danger to get killed by traffic. The carapaces of four (18%) of the captured turtles showed significant cracks, presumably caused by a vehicle (PUPINŠ unpubl. data).

Habitat destruction:

Habitat destruction is a big threat for the Latvian turtle populations, each consisting of a small number of individuals (PUPINA & PUPINŠ 1996). During the Soviet Union era ending in 1989, land improvements were conducted on a big scale. Many areas inhabited by turtles were disturbed or even destroyed by draining, peat digging (e.g. Saldus area) or pond cleaning (e.g. Dobeles area). In Latvia, the urbanisation is proceeding, also in areas including habitats of *Emys orbicularis* (PUPINA & PUPINŠ 2005). Construction of roads and expansion of cities lead to habitat changes and fragmentations (e.g. Daugavpils area). Additionally, habitat deteriorations because of overgrowth with bushes and trees are responsible for the loss of suitable turtle habitats (e.g. Daugavpils and Kraslava area) (PUPINŠ unpubl. data).

Human consumption:

Nowadays, pond turtles are not utilized as food by people in Latvia.

Collecting for trade:

There is no specific information about collecting for trade available, but captures of single individuals are well documented. In 24 cases of pond turtle observations from 1970 until 2005,

the turtles have been caught by people and brought to houses. In 1999 and 2000, pet-shops in Riga tried to sell four juveniles whose origin was not clear. One person has captured a specimen of *Emys orbicularis* in the Daugavpils area and wanted to sell it (PUPINŠ unpubl. data).

The loss of reproductive females e.g. by catching animals during the nesting season (e.g. Dobeles and Daugavpils area) can have very negative effects on the small turtle populations and finally lead to their extinction due to reduced or prevented reproductive activity (comp. MITRUS 2000, PUPINA & PUPINŠ 1996, PUPINŠ unpubl. data).

Other human influences:

In Latvia, there are further different types of negative human influences on *Emys orbicularis*.

Fishing with nets and fishing tackles can kill individuals. Humans use turtle habitats for recreation and hunting which can impair the turtles. Animals inhabiting fish-breeding ponds can be disturbed by different human activities e.g. drainage for fishing and technical actions (e.g. Dobeles, Madona and Daugavpils area) (PUPINŠ unpubl. data).

The attitude of part of the Latvian human population towards turtles is indifferent or negative (PUPINŠ 2002). There is one known case from the Daugavpils area where young countrymen have caught adult individuals beating them and smashing their legs (PUPINŠ unpubl. data).

A new threat for Latvian *Emys orbicularis* is the intentional or unintentional introduction of other freshwater turtle species, their presence in nature since 2005 being confirmed. In the Sigulda area, six adult slider turtles (*Trachemys scripta*) and in other areas (e.g. Daugavpils area) some more single specimens have been found (PUPINŠ & PUPINA 2005). There are several reports about the negative impact of American freshwater turtles on *Emys orbicularis* from other countries.

CONSERVATION:

Legislation, protective measures, organisations:

In 1985, *Emys orbicularis* was placed on the list of rare and protected animals of Latvia approved by the MINISTRY CABINET OF LATVIA (<http://www.vdm.gov.lv/vad/Latviski/Likumd/MK/396.htm>). Since 2004, Latvia is a member state of the European Union, following the international conventions and executing all the international legislative norms concerning the protection of *Emys orbicularis* (<http://www.vdm.gov.lv>). For instance, the penalty for the dispatch of Latvian turtles is about 800 \$ in 2007 (<http://www.vdm.gov.lv/vad/Latviski/Likumd/MK/117.htm>).

The first reserve for *Emys orbicularis* has been established in the Dobeles area based on the observation of adults and juveniles there. However, up to now no persistent turtle population is confirmed for this area (PUPINŠ unpubl. data). In 2006, preparations were made for the creation of a second small reserve for *Emys orbicularis* in the Kraslava area where turtles have repeatedly been recorded.

The Ecological Society of Latgale (www.les.dpunet.lv/) investigates the habitats and the ecology of the Latvian turtles, supports the Latvia *Emys*

Centre and realizes some conservation projects for *Emys* e.g. the breeding project in the Latgale Zoo (www.zoo.dpunet.lv/) with subsequent reintroduction of turtles into nature. The specimens for breeding have been caught in Latvia by local residents. In 2006, the "zoo-population" consisted of more than 30 individuals. Twelve juveniles hatched in the same year. In the frame of the project, the first *Emys*-population shall be established in a fenced private pond in the years 2007 and 2008. Also the Latvian Fund of Protection of the Environment supports the research on and the protection of Latvian pond turtles. The Riga National Zoo is also involved in activities supporting *Emys orbicularis* e.g. public relations via a flyer written by LIDAKA et al. (2005).

Due to the rarity and vulnerability of the very small Latvian turtle populations, for its survival *Emys orbicularis* requires urgent and effective protection measures based on a thorough research on the status and habitat requirements of the existing populations.

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