

Testudines

BREEDING SPECIAL – Are there any special requirements, circumstances or habitat needs for breeding or can the species breed in many types of situations, habitats or circumstances?

Species	Common Name	Breeding Special
Cheloniidae	sea turtles	
<i>Caretta c. caretta</i>	Atlantic loggerhead	1 - nests are usually located above the high-tide line on open beaches, but sometimes even among the shrubs and grasses behind the beach (Ernst et al. 1994)
<i>Chelonia m. mydas</i>	Atlantic green turtle	1 - beaches used most frequently for nesting by <i>Chelonia</i> are flat, rising only about 2-3 m above the water, with low wave energy (Ernst et al. 1994)
<i>Eretmochelys i. imbricata</i>	Atlantic hawksbill	1 - <i>Eretmochelys</i> prefers beaches with low wave energy and steeper beach slopes (Horrocks and Scott 1991)
<i>Lepidochelys kempii</i>	Kemp's ridley or Atlantic ridley	1 - the ideal nesting beach for this species is broad, with relatively low-amplitude tides, white sand, and a well-defined or elevated vegetated dune area behind it (Pritchard and Márquez 1973)
Dermochelyidae	leatherback sea turtles	
<i>Dermochelys c. coriacea</i>	Atlantic leatherback	1 - typical nesting beaches have a slope of 8-12° and are free of much abrasive material (Ernst et al. 1994)
Chelydridae	snapping turtles	
<i>Chelydra s. serpentina</i>	eastern snapping turtle	3 - relatively loose sand, loam, vegetable debris, or sawdust piles left at old saw mills. Muskrat and beaver lodges are sometimes used...Where nest sites are hard to find females rely extensively on manmade sites, such as roadsides, railways, and dams (Ernst et al. 1994)
Emyidae	pond turtles	
<i>Chrysemys p. picta</i>	eastern painted turtle	3
<i>Chrysemys p. marginata</i>	midland painted turtle	3

<i>Clemmys guttata</i>	spotted turtle	2 - nests are dug in well-drained areas exposed to full sunlight. Nest sites include grass tussocks, hummocks of moist sphagnum moss, and the loamy soil of marshy pastures (Ernst 1970; Belmore 1980; Chippindale 1989)
<i>Clemmys insculpta</i>	wood turtle	2 - In Michigan nest site requirements include moist, well-drained sand or soil with direct sun exposure, and free of rocks or heavy vegetation (Harding and Bloomer 1979)
<i>Clemmys muhlenbergii</i>	bog turtle	2 - Most lay their eggs in elevated sedge tussocks or sphagnum moss above the water line. Other sites include the soft soil above springs, adjacent pastures, or even the sides of railroad embankments (Ernst et al. 1994)
<i>Deirochelys r. reticularia</i>	eastern chicken turtle	"Winter" nesting pattern (Jackson 1988)
<i>Emydoidea blandingii</i>	Blanding's turtle	2 (Piepgras and Lang 2000)
<i>Graptemys geographica</i>	northern map turtle	3 (Ernst et al. 1994)
<i>Graptemys ouachitensis</i>	Ouachita map turtle	3 (Ernst et al. 1994)
<i>Malaclemys terrapin terrapin</i>	northern diamond-backed terrapin	Do not nest during heavy or prolonged rains (Burger and Montevicchi 1975); Those obs. by Seigel (1980c) only nested on dike roads
<i>Pseudemys c. concinna</i>	eastern river cooter	3 usually within 30 m from water (Ernst et al. 1994)
<i>Pseudemys c. floridana</i>	coastal plain cooter	Can nest up to 6 times/yr! (Jackson 1988a); in northern parts of range, hatchlings may overwinter in nest (Ernst et al. 1994)
<i>Pseudemys rubriventris</i>	northern red-bellied cooter	2 - sandy clay, loam soil (Ernst et al. 1994)
<i>Terrapene c. carolina</i>	eastern box turtle	3 - on land or in shallow water (Ernst 1981)
<i>Trachemys s. scripta</i>	yellow-bellied slider	1 nest on open unshaded soil that is not muddy (Ernst et al. 1994)
<i>Trachemys s. elegans</i>	red-eared slider	
<i>Trachemys s. troosti</i>	cumberland slider	
Kinosternidae	mud and musk turtles	

<i>Kinosternon s. subrubrum</i>	eastern mud turtle	Y - In northern Virginia Ernst's former graduate student Steve W. Gotte found that female <i>K. subrubrum</i> most frequently nested in the rotting pulpwood of downed logs. In some localities mud turtles nest in muskrat tunnels, and eggs have also been found on the surface of the ground and under piles of boards (Ernst et al. 1994)
<i>Kinosternon baurii</i>	striped mud turtle	Y - nests are constructed in sand or in piles of decaying vegetation (Ernst et al. 1994)
<i>Sternotherus minor peltifer</i>	stripeneck musk turtle	Y - all mating pairs were: (1) completely submerged and situated upon some substrate, (2) at least partially concealed, (3) found in shaded areas, and (4) observed in the early to midmorning (Ernst et al. 1994)
<i>Sternotherus odoratus</i>	stinkpot or common musk turtle	Y - Some females lay their eggs on the open ground; others dig well-formed nests as deep as 10 cm. Most...are shallow and are formed by scraping away debris...many eggs are laid under stumps and fallen logs and in the walls of muskrat lodges (Ernst et al. 1994)
Trionychidae	softshell turtles	
<i>Apalone m. mutica</i>	midland smooth softshell	Y - nests are usually excavated on the high ridges of exposed sand bars (Muller 1921; Goldsmith 1945; Anderson 1958; Webb 1962; Fitch and Plummer 1975; Plummer 1976); most are fully exposed to the sun and located within 30 m of the water and about 1.34 m above it (Fitch and Plummer 1975)
<i>Apalone s. spinifera</i>	eastern spiny softshell	Y - most nests are dug in full sunlight close to the water, often in adjacent sand or gravel bars (Vogt 1981)

Breeding Special Codes: 1 = specialized (< 2 habitat types), 2 = moderate (3 – 5 habitat types), 3 = generalist (> 5 habitat types), Y = Yes, usually with more details provided