

## Testudines

### % EGG SURVIVAL - What percent of eggs survive to adulthood?

Species	Common Name	% Egg Survival
<b>Cheloniidae</b>	<b>sea turtles</b>	
<i>Caretta c. caretta</i>	Atlantic loggerhead	estimated survivorship rate for a loggerhead from egg through adulthood is only 0.09-0.18% at Little Cumberland Island, Georgia (Frazer 1986)
<i>Chelonia m. mydas</i>	Atlantic green turtle	hatchling success may vary from zero to over 90% in natural, undisturbed nests, but may average lower in clutches removed and reburied elsewhere or artificially incubated (Ernst et al. 1994)
<i>Eretmochelys i. imbricata</i>	Atlantic hawksbill	hatching success may be 0-100% for an individual nest and 47-97% for an entire season at a particular beach (Witzell 1983)
<i>Lepidochelys kempii</i>	Kemp's ridley or Atlantic ridley	Unk
<b>Dermochelyidae</b>	<b>leatherback sea turtles</b>	
<i>Dermochelys c. coriacea</i>	Atlantic leatherback	Iverson (1991) estimated the annual natural survivorship from egg to hatchling to be only 63%, and the National Research Council (1990) listed the mean emergence success as varying from 25 to 71% at different beaches (Ernst et al. 1994)
<b>Chelydridae</b>	<b>snapping turtles</b>	
<i>Chelydra s. serpentina</i>	eastern snapping turtle	mean egg to hatchling survivorship varies from 12 to 22% per year (Hammer 1969; Congdon et al. 1987); at some sites, 100% of the
<b>Emydidae</b>	<b>pond turtles</b>	
<i>Chrysemys p. picta</i>	eastern painted turtle	< 25% (Gibbons 1968b)
<i>Chrysemys p. marginata</i>	midland painted turtle	< 25% (Gibbons 1968b)
<i>Clemmys guttata</i>	spotted turtle	prehatching mortality is about 32% (Ernst et al. 1994)
<i>Clemmys insculpta</i>	wood turtle	in laboratory setting, 74% of incubated eggs survived to hatching (Farrell and Graham 1991)
<i>Clemmys muhlenbergii</i>	bog turtle	Unk
<i>Deirochelys r. reticularia</i>	eastern chicken turtle	Unk

<i>Emydoidea blandingii</i>	Blanding's turtle	the annualized survivorship of eggs and hatchlings in a Michigan population is only 18% (Congdon et al. 1983; Iverson 1991)
<i>Graptemys geographica</i>	northern map turtle	Unk
<i>Graptemys ouachitensis</i>	Ouachita map turtle	Unk
<i>Malaclemys terrapin terrapin</i>	northern diamond-backed terrapin	23% (Iverson 1991)
<i>Pseudemys c. concinna</i>	eastern river cooter	From 3 groups of eggs, 47.0% - 91.3%: lab setting (Jackson and Jackson 1968)
<i>Pseudemys c. floridana</i>	coastal plain cooter	Unk
<i>Pseudemys rubriventris</i>	northern red-bellied cooter	Unk
<i>Terrapene c. carolina</i>	eastern box turtle	0-78%(Dodge et al 1978)
<i>Trachemys s. scripta</i>	yellow-bellied slider	Unk
<i>Trachemys s. elegans</i>	red-eared slider	Unk
<i>Trachemys s. troosti</i>	cumberland slider	Unk
<b>Kinosternidae</b>	<b>mud and musk turtles</b>	
<i>Kinosternon s. subrubrum</i>	eastern mud turtle	survival from oviposition until the hatchling enters the water is 26.1% (Ernst et al. 1994)
<i>Kinosternon baurii</i>	striped mud turtle	Unk
<i>Sternotherus minor peltifer</i>	stripeneck musk turtle	Unk
<i>Sternotherus odoratus</i>	stinkpot or common musk turtle	total hatchling success of 104 Pennsylvania eggs laid was only 15.4% (Ernst 1986a)
<b>Trionychidae</b>	<b>softshell turtles</b>	
<i>Apalone m. mutica</i>	midland smooth softshell	Survivorship of eggs, owing to submergence, predation, and other hazards, varies from year to year and at times may be very low. In 1973 only 2%...hatched, whereas 49%...hatched the next year (Plummer 1976)
<i>Apalone s. spinifera</i>	eastern spiny softshell	Unk

**% Egg Survival Codes:** State as < 25%, 26-75%, or > 75%, Unk = unknown

**Note:** Survival rates can vary dramatically depending on local conditions, many of the above figures are results of one or a few studies.