

Cal/Ecotox Exposure Factors for Western Pond Turtle (*Clemmys marmorata*)*

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Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Body Weight - Mean			1 lb 6 oz - 2 lb 1 oz	lb, oz	B	Adult	CA	a	1
Body Weight - Mean	854			g	M	Adult	Fresno; CA	b	2
Clutch or Litter Size			4-9	eggs/clutch	F	Adult	OR	c	3
Clutch or Litter Size			3-12	eggs/clutch	F	Adult	CA	d	1
Clutch or Litter Size	5.69			eggs/clutch	F	Adult	CA	e	4
Clutches or Litters per year			1.0 - 1.7	clutches/yr	F	Adult	CA	f	4
Dietary Composition	Algae (18.00); Other vegetation (0.30); Nematomorpha (0.05); Crustacea (10.10); Araneae (0.15); Odonata nymphs (4.05); Ephemeroptera nymphs (0.15); Trichoptera larvae (19.80); Hemiptera nymphs (0.40); Hemiptera adults (0.30); Orthoptera adults (0.55); Coleoptera larvae (5.15); Coleoptera adults (0.30); Diptera larvae (0.66), Diptera adults (0.10); Osteichthyes (0.20); Amphibia (4.05); Other (1.35)			cc	F	Adult	Trinity; CA	g	5
Dietary Composition	Algae (4.00); Other vegetation (0.50); Crustacea (5.55); Odonata nymphs (5.00); Ephemeroptera nymphs (2.91); Trichoptera larvae (7.40); Hemiptera nymphs (0.10); Hemiptera adults (0.10); Orthoptera adults (0.20); Coleoptera larvae (0.75); Coleoptera adults (0.10); Diptera larvae (9.15); Osteichthyes (10.90); Amphibia (7.80); Other (0.50)			cc	M	Adult	Trinity; CA	h	5
Dietary Composition	Algae (2.00); Nematomorpha (0.25); Crustacea (2.55); Araneae (0.15); Odonata nymphs (10.15); Ephemeroptera nymphs (4.60); Trichoptera larvae (17.25); Hemiptera nymphs (0.58); Hemiptera adults (0.41); Orthoptera adults (1.60); Coleoptera larvae (7.95); Coleoptera adults (0.48); Diptera larvae (4.45), Diptera adults (0.30); Osteichthyes (0.90); Amphibia (1.20); Other (0.80)			cc	NR	Juvenile	Trinity; CA	i	5
Duration of Incubation or Gestation			73 - 80	d	NR	Embryo	Lab	j	3
Home Range	104		0-2100	m	F	Adult	Trinity; CA	k	6
Home Range	248		0-750	m	F	Adult	Trinity; CA	l	6
Home Range	400		200-5625	m	M	Adult	Trinity; CA	m	6
Home Range	976		225-2425	m	M	Adult	Trinity; CA	n	6
Home Range			25 - 37.5	m	NR	Adult	San Luis Obispo; CA	o	7

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Endpoint Type	Endpoint Value	Error	Range	Units	Sex	Life Stage	Location	Note	Reference
Home Range			28.0 - 87.1	m	NR	Adult	San Luis Obispo; CA	p	7
Home Range	133		0 - 3175	m	NR	Juvenile	Trinity; CA	q	6
Home Range	363		0-1150	m	NR	Juvenile	Trinity; CA	r	6
Population Density	214			#/ha	B	Both Adult and Juv.	Trinity; CA	s	6
Population Density			13 - 19	#/ha	B	Both Adult and Juv.	Trinity; CA	t	8
Time of Mating/ Laying	June - Aug.				F	Adult	CA	u	1
Time of Torpor or Hibernation	Oct. - May				B	Both Adult and Juv.	Trinity; CA	v	6
Time of Torpor or Hibernation	Sept. - Mar.				NR	NR	CA	w	1

Notes

- a N=9; Sacramento and San Joaquin Valleys
- b maximum reported body weight; N=450; largest turtle found near Huron
- c N=4; June-July; Umpqua River, Roseburg, Douglas County
- d N=7
- e average clutch size; N=81 clutches; Arroyo Laguna, Little Pico Creek, Pico Creek and San Simeon Creek
- f range of average number of clutches/yr; N=81 clutches; Arroyo Laguna, Little Pico Creek, Pico Creek and San Simeon Creek
- g volume (cc) of food items in stomach contents determined by water displacement; N=27; Hayfork Creek (elev., 750m)
- h volume (cc) of food items in stomach contents determined by water displacement; N=20; Hayfork Creek (elev., 750m)
- i volume (cc) of food items in stomach contents determined by water displacement; N=30; Hayfork Creek (elev., 750m)
- j time from egg to hatching at 25-30C; N=13
- k average distance moved along stream between relocations; N=23; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- l "distance between extremes" or maximum range on a linear scale; N=23; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- m average distance moved along stream between relocations; N=19; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- n "distance between extremes" or maximum range on a linear scale; N=19; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- o median daily movement; N=4; May - June; Arroyo Laguna-Oak Knoll Creek, San Simeon Point; see citation for figures of distance travelled from May - Aug.
- p mean daily movement; N=4; May - June; Arroyo Laguna-Oak Knoll Creek, San Simeon Point; see citation for figures of distance travelled from May - Aug.
- q average distance moved along stream between relocations; N=18; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- r "distance between extremes" or maximum range on a linear scale; N=18; July-Sept.; Hayfork Creek (elev., 610m); based on data from turtles relocated >4 times over 4 yrs
- s density also reported as 333-347 turtles/mile of stream or 85 turtles/acre; N=578 marked turtles; summer; Hayfork Creek (elev., 610m)
- t range in density estimates at 2 locations; N=NR; Apr. - Sept.; Trinity River
- u time of egg deposition; N=NR
- v N=578 marked turtles; Hayfork Creek (elev., 610m)
- w N=NR

References

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- 6 Bury, Richard Bruce. 1972. Habits and home range of the Pacific pond turtle, *Clemmys marmorata*, in a stream community. Ph.D. dissertation. Berkeley, CA: University of California, Berkeley. 205 p.
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