

Data from UV Radiation Experiment

Data Collection:

- Yearly averages of UV-B radiation at the study site since 1979.

Year	Annually Averaged UV-B (J/m ² /yr)
1979	4750
1980	4850
1981	4750
1982	4900
1983	5100
1984	5050
1985	5000
1986	5075
1987	5090
1988	5000
1989	5050
1990	5000
1991	5100
1992	5300
1997	5200
1998	5150

Data estimated from Figure 2 in: Middleton EM, Herman JR, Celarier EA, Wilkinson JW, Carey C, Rusin RJ. 2001. Evaluating ultraviolet radiation exposure with satellite data at sites of amphibian declines in Central and South America. *Conservation Biology* 15(4): 914-929. As indicated by the title, the data are actually from Central America.

Experimental Results:



- Frogs raised from egg stage through adulthood under different levels of UV radiation.
- Four replicates per treatment; 10 embryos->frogs per replicate

Radiation Level	% of frogs with hind limb or digit deformities
100% of ambient	95
85% of ambient	90

75% of ambient	80
65% of ambient	35
50% of ambient	30
25% of ambient	0

Data estimated from figure 2: Ankley GT, Diamond SA, Tietge JE, Holcombe GW, Jensen KM, Defoe DL, Peterson R. 2002. Assessment of the Risk of Solar Ultraviolet Radiation to Amphibians. I. Dose-Dependent Induction of Hindlimb Malformations in the Northern Leopard Frog (*Rana pipiens*). Environ. Sci. Technol. 36: 2853-2858.

Observations:

Frogs from Experiment	Frogs from Your Pond
 <p>source:http://info.hartwick.edu/biology/def_frogs/</p>	 <p>source:http://info.hartwick.edu/biology/def_frogs/</p>