BIOLOGY SEMINAR

4:00 PM TUESDAY *PHYSICS ASTRONOMY A102*	*3:45 COFFEE, TEA & COOKIES P-A A102* *ADULT REFRESHMENTS FOLLOW IN P-A A044F* *(GRADUATE STUDENT LOUNGE)*

Tuesday, March 1st, 2005

"WHAT THE HUNDRED-EYED GIANT SAW: HERMES, APHRODITE, AND THE CANARY WHO COULDN'T SING."

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http://ib.berkeley.edu/faculty/hayest.html

**Job Candidate*

My research focuses on evolutionary developmental endocrinology of amphibians. Naturally, such studies require both laboratory and field work. In one ongoing study, I am examining the ecology, evolution, and developmental endocrinology of sexual dichromatic coloration in African reedfrogs. In at least one species (*Hyperolius argus*), females undergo a dramatic change in dorsal coloration (from solid green to red with white spots). This color change is estrogen dependent, so males, which do not have significant estrogen levels, do not change color. In the sister taxa, *Hyperolius viridiflavus*, some males produce estrogen in the skin and change color similar to the females. The frequency of "feminized" males varies between populations however. In ongoing studies, we are examining the contributions of endocrine, genetic, and environmental/ecological factors that contribute to this variation. Our studies in this area have led us to examine demasculinization and feminization of amphibians as a result of exposure to endocrine-disrupting pesticides in the United States. In particular, we have shown that the herbicide, atrazine, is a potent endocrine disruptor that both chemically castrates and feminizes exposed males. Ongoing laboratory and field studies examine the impact on reproductive function and the evolution of pesticide resistance in Ranid frogs.

Host: Ray Huey