

## U.S. FISH AND WILDLIFE SERVICE - SPOTLIGHT SPECIES ACTION PLAN

**Common Name:** Kaua'i cave wolf spider

**Scientific Name:** *Adelocosa anops*

**Lead Region:** 1

**Lead Field Office:** Pacific Islands Fish and Wildlife Service

### **Species Information:**

Status: E

Recovery Priority Number or Listing Priority Number: 1

Recovery Plan or Candidate Assessment Form: 2006 Recovery Plan for the Kaua'i Cave Arthropods

Most Recent 5-year Review: September 29, 2006

Other: None

Threats: Current threats are destruction and loss of cave habitat, including alteration or removal of surface vegetation near cave entrances and above the cave; predation by introduced arthropods and bio-control agents; urban and household pesticide use; septic tanks and leaching fields; and small population sizes.

**Target:** Population status maintained and known occupied range of species expanded.

**Measure:** No significant decline in annual detections among monitoring caves and increasing by one the number of known caves occupied by the Kaua'i cave wolf spider.

### **Actions:**

1. Continue population and demographic monitoring of currently occupied caves on a quarterly basis.
2. Survey caves that have been identified but never surveyed. This action addresses recovery action 3.7 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).
3. Resurvey previously occupied caves to determine if the species is present and record numbers. This action addresses recovery action 3.7 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).
4. Modify characteristics (e.g., increase surface vegetation, reduce airflow through the cave) of one unoccupied caves to improve suitability for the species. This action addresses recovery action 3.6 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).
5. Revegetate the surface of one the cave footprint with appropriate native plants. This action address recovery action 2.1 and 3.4 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).

Identify responsible parties for the actions: US Fish and Wildlife Service and Private Landowners.

Estimated costs of the actions:

Action No.	Action	Estimated cost (all figures approximate)	
		Ecological Services	Partners
1	Continue population and demographic monitoring of currently occupied caves on a quarterly basis.	[Part of Ecological Services Recovery workload]	
2	Survey caves that have been identified but never surveyed. This action addresses recovery action 3.7 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).		Unknown
3	Resurvey previously occupied caves to determine if the species is present and record numbers. This action addresses recovery action 3.7 in the Recovery Plan for the Kaua'i Cave Arthropods (2006)	10,000	Unknown
4	Modify characteristics (e.g., increase surface vegetation, reduce airflow through the cave) of one unoccupied cave to improve suitability for the species. This action addresses recovery action 3.6 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).	5,500	Unknown
5	Revegetate the surface of the cave footprint with appropriate native plants. This action address recovery action 2.1 and 3.4 in the Recovery Plan for the Kaua'i Cave Arthropods (2006).		Unknown

**Role of other agencies:** None identified

**Role of other ESA programs:** Section 7 and Section 10 could provide partnering and funding opportunities to tie conservation work to the increase in residential and commercial development in the area; Recovery will provide overall species action plan coordination, surveys, and some field work.

**Role of other FWS programs:** Conservation Partnerships could provide assistance in identifying landowners who are interested in conservation projects, meet with landowners to coordinate implementation of action plan projects, and provide funding.

**Additional funding analysis:** The actions described above cannot be undertaken nor the stated target reached without the estimated funding from the Service and outside sources described above. If we received major funding dedicated to the Kaua'i cave spider within the next five years, we would use the funding in coordination with private landowners to:

1. Increase the number of surveys within caves that have been identified but never surveyed. This action addresses recovery action 3.7 in the Recovery Plan for the Kaua'i Cave Arthropods (2006). Cost: approximately \$10,000 for the next 5 years.
2. Restrict access into occupied caves. Cost: \$500 to 20,000.
3. Revegetate, protect and maintain the plant communities over the caves, subterranean cracks and mesocaverns that provide habitat for this species. Protection to the surface above the caves will improve the long term conservation value of the below-ground habitat, which is also home to an endangered, endemic amphipod that feeds on the roots of surface vegetation. Cost to revegetate, restore, and maintain the plants in the ground above the cave footprint for 3 years: approximately \$500,000.