

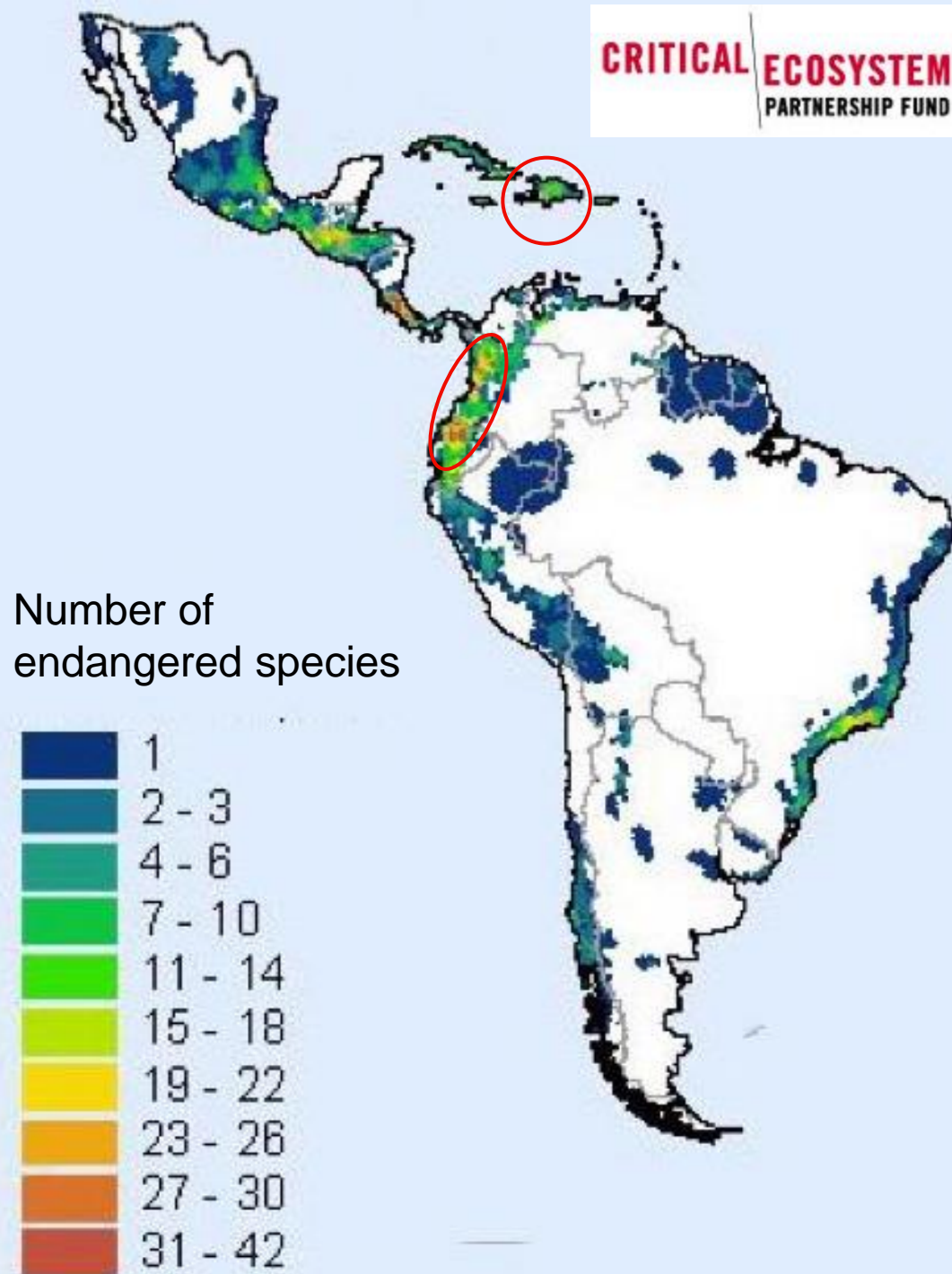
Ex situ breeding programs for Haitian and Andean amphibians



Carlos C. Martínez Rivera, Ph D



1. Endangered Frogs of Haiti: A Long-term Survival Plan for Critically Endangered Amphibian in Haiti.
2. Supporting Zoo Amaru's Amphibian Conservation Center in Cuenca, Ecuador.
3. Frogs and toads from southwestern Colombia: Jewels of nature that our grandsons should.





Vik Dewan, our Zoo's President and CEO address our guests from Haiti at the welcoming dinner. From left to right: Dr. Joansen Lacour (Quisqueya University), Hon. Lyonel Valbrun (General Director of the Ministry of Agriculture – Haiti), Philippe Bayard (President of Societé Audubon Haiti), Dr. S Blair Hedges (Penn State University) Kenneth Woodson (VP Community and Government Affairs for the Philadelphia Zoo), and Jurgen Hoppe videographer and naturalist.



Lost Frogs of Haiti expedition



Lost Frogs of Haiti expedition









Basement of Big Cat Falls



1.Six individual 10' x 10' stalls

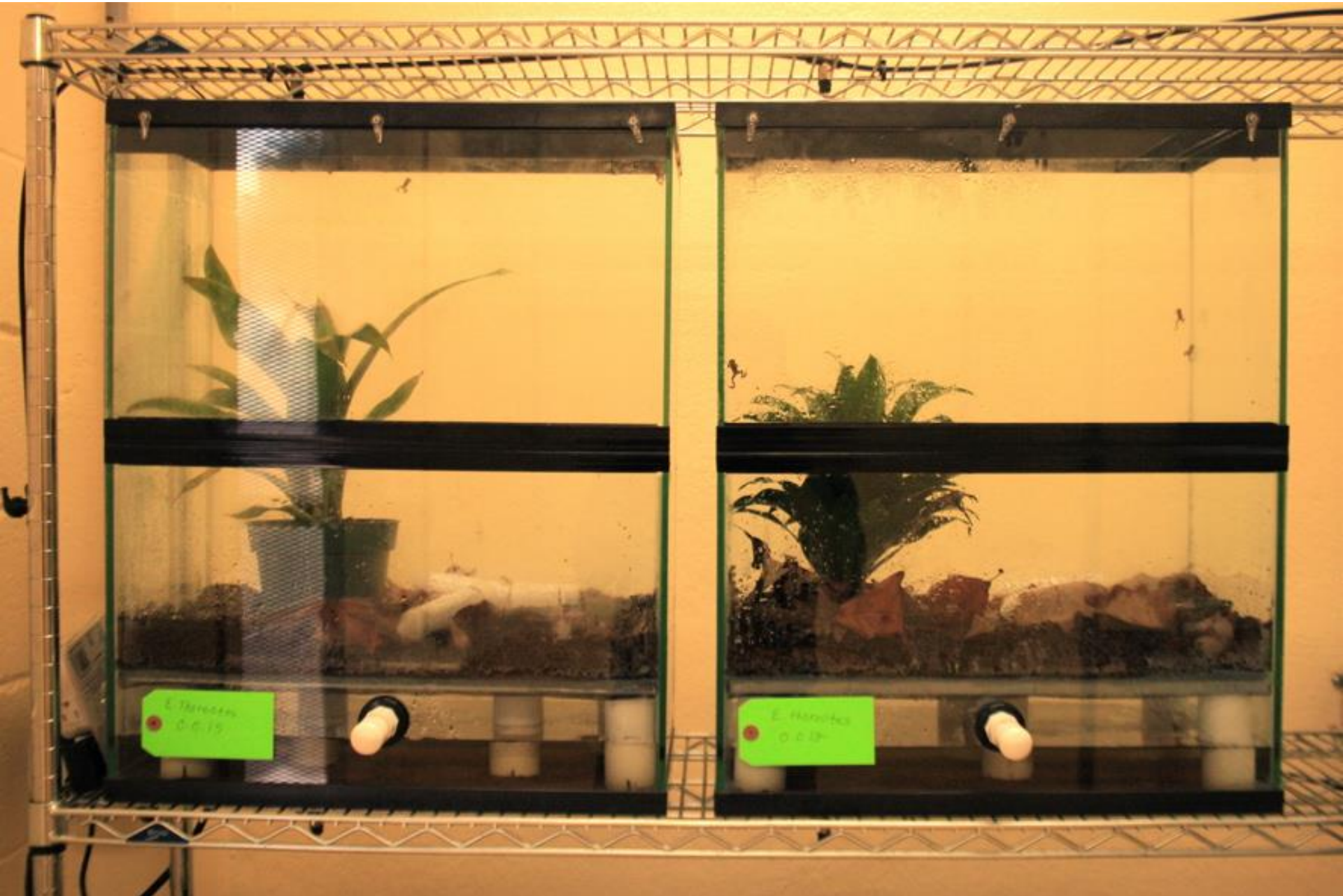
2.One room for insect rearing

3.One room for water filtration and storage tanks

4.Each stall has up to six terrariums

- Custom tanks
- Mistng system
- Racks
- Pumps
- Pipes and tubes
- UV-B Light
- Filter system
- Water holding tanks

Eleutherodactylus thorectes

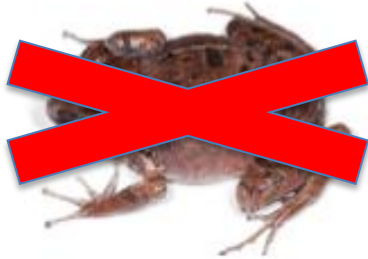




Mozart's frog



Haitian marsh frog



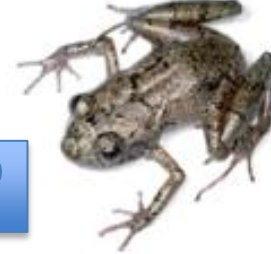
Tiburon burrowing frog



La Hotte glanded frog



La Hotte big legged frog



La Selle red-legged frog



La Hotte land frog



Macaya breast-spot frog



Short-nosed green frog



Macaya dusky frog





Mozart's frog

E. amadeus ~ 199 frogs
12 wild-caught adult,
10 captive-bred adults,
26 twelve mo. old,
46 nine mo. old,
42 six mo. old,
20 three mo. old,
43 one mo. old



La Hotte land frog

E. bakeri ~ 1292 frogs
17 wild-caught adults,
586 captive-bred adults
265 eight mo. old,
107 six mo. old,
77 four mo. old,
185 three mo. old,
55 one mo. old



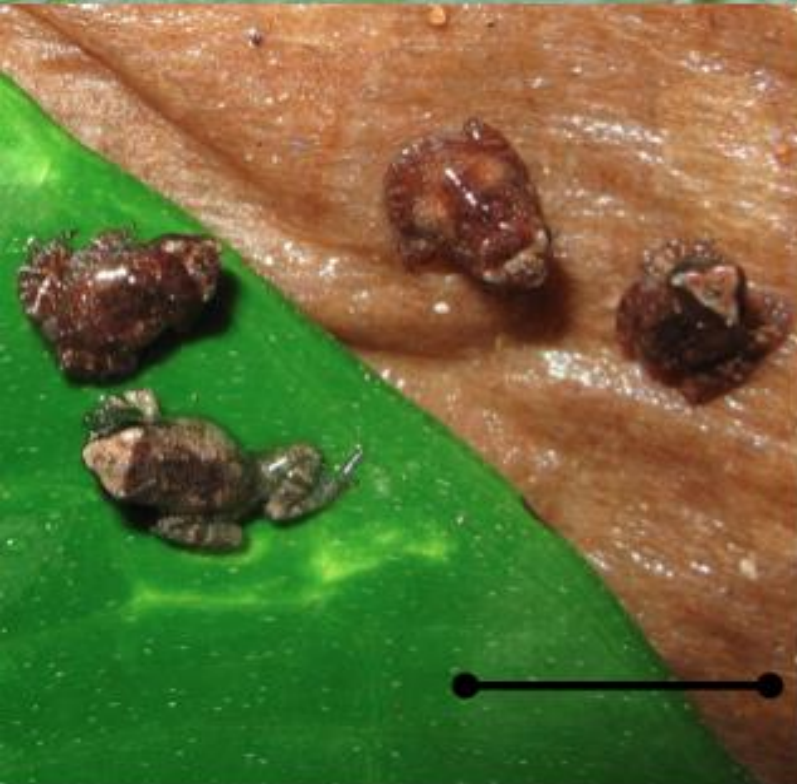
Macaya breast-spot frog

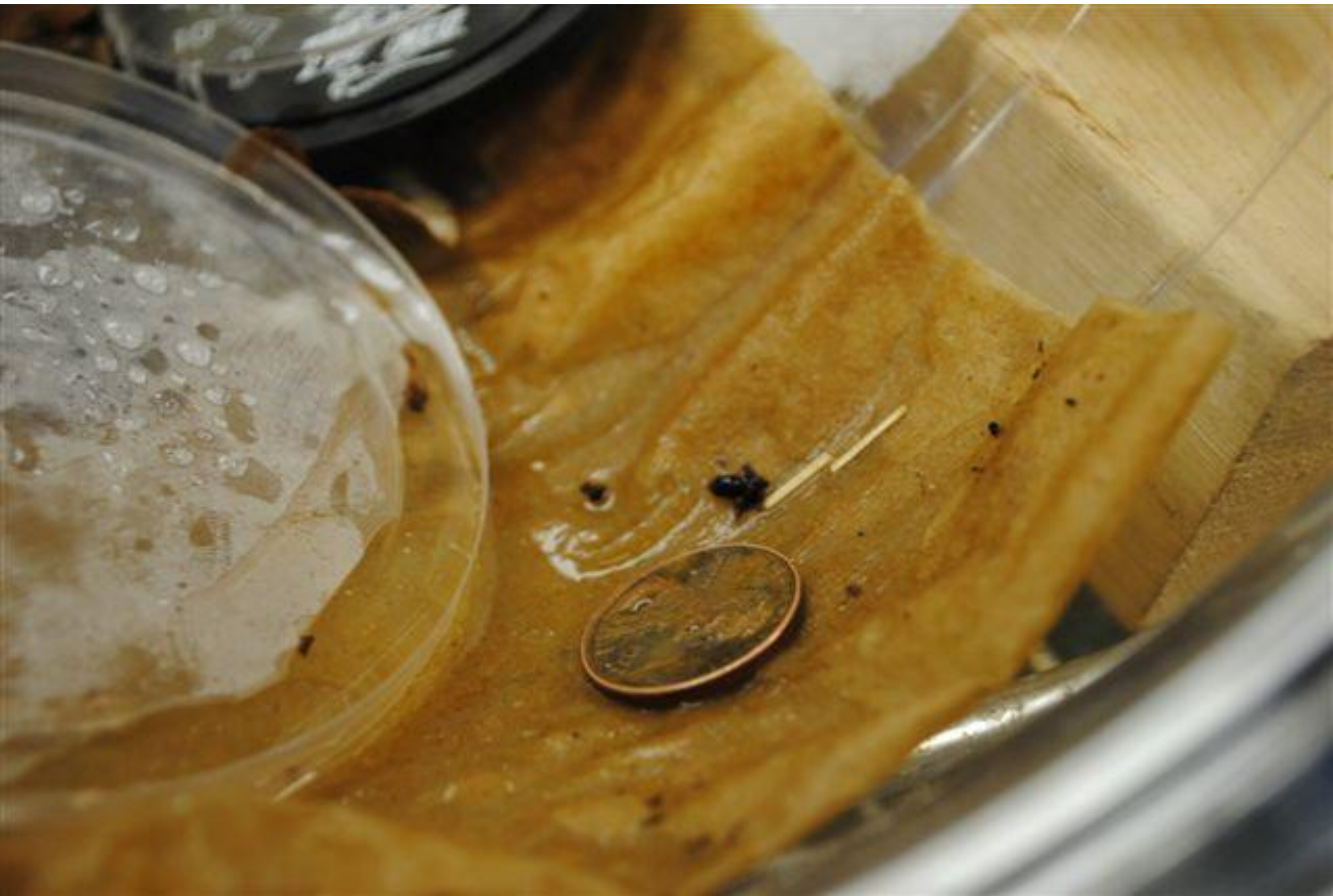
E. thorectes ~ 25 frogs
25 wild-caught adults



Macaya dusky frog

E. ventrilineatus ~ 20 frogs
20 wild-caught adults















Cosmocerca kinsellai sp. nov.

Cosmocerca kinsellai sp. nov. (Ascaridida, Cosmocercidae) is described from the skin and large intestine of *Eleutherodactylus bakeri* (Anura, Eleutherodactylidae).

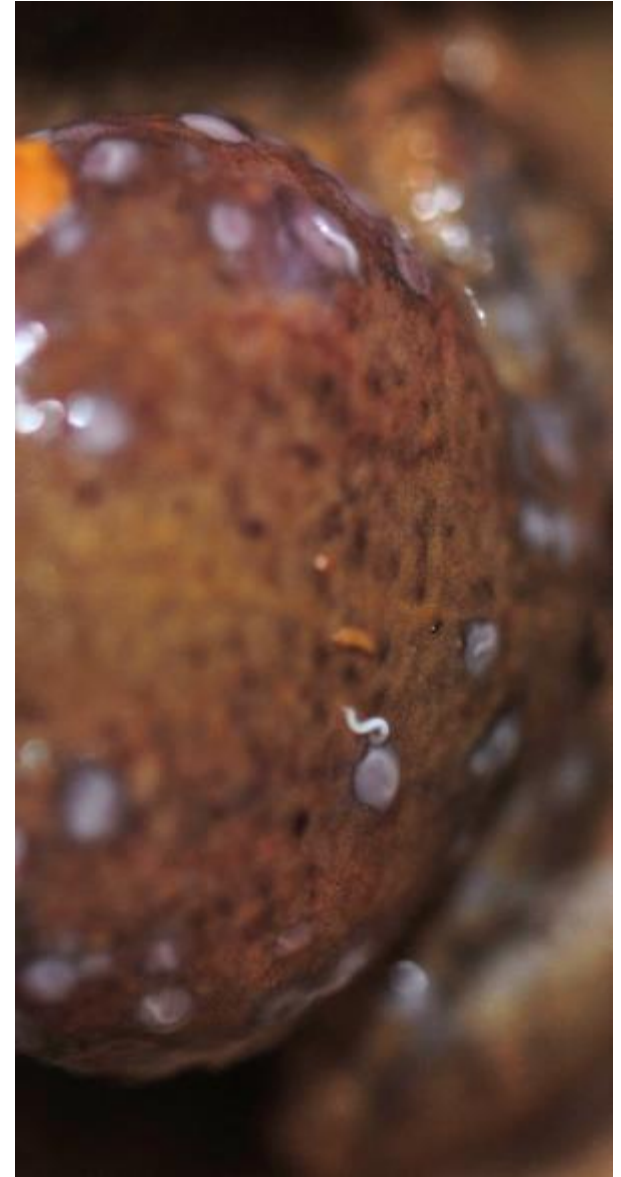
C. kinsellai represents the 27th species assigned to the genus and the 13th from the Neotropical biogeographical region. *Cosmocerca kinsellai* sp. nov. is most similar to *C. chilensis* and *C. rara* in that these 3 Neotropical species possess 6 pairs of plectanes.

C. kinsellai sp. nov. is easily separated from *C. chilensis* on the basis of spicule length (*S. chilensis*, 80 μ m; *C. kinsellai*, 192 μ m) and from *C. rara* by spicule sclerafication density (lightly sclerafied in *C. kinsellai*; densely sclerafied in *C. rara*).



Cosmocerca kinsellai sp. nov.

- **Description:** Small, stout fusiform nematodes, prominent sexual dimorphism, males approximately two-thirds length of females.
- Cuticle with longitudinal striations. Numerous small somatic papillae present on body surface becoming more pronounced posteriorly.
- Mouth with 3 prominent lips, each lip with an anteriorly directed V-shaped cuticular flange; dorsal lip with 2 sessile papillae, each ventrolateral lip with 1 sessile papilla and 1 lateral amphid.
- Esophagus with short pharynx, cylindrical corpus, and posterior bulb containing valves. Excretory pore anterior to oesophageal bulb.
- Vulva near midbody; female reproductive system prodelphic. Males with 2 small spicules, a heavily sclerified gubernaculum, and 12 plectanes in 2 rows on ventral surface anterior of cloaca.



Cosmocerca kinsellai sp. nov.

Male:

Length 2.99 ± 0.28 mm (2.56-3.39 mm).

Width at midbody 271 ± 19 (230-293).

Esophagus 302 ± 22 (280-330) in total length

Pharynx 30 ± 3 (24-33) long,

Corpus 168 ± 15 (183-226)

Esophageal bulb 75 ± 10 (67-92) long, 51 ± 5 (48-55) wide.

Nerve ring 65 ± 6 (55-73) and excretory pore 211 ± 17 (183-238) from anterior end respectively.



Cosmocerca kinsellai sp. nov.

- Gubernaculum, 222 ± 13 (201-244) in length, heavily sclerotized margins, distal end pointed, proximal end massive.
- Spicules equal 192 ± 10 (183-214) in length, very lightly sclerotized and bent at midpoint.
- Twelve precloacal plectanes, 2 rows of 6. Each plectane with heavily sclerotized V-shaped body, distal tip with rosette of small denticles.
- Tail flexed ventrally, 91 ± 9 (73-104) in length terminating in sharp point. Four rows of somatic papillae present, more pronounced posteriorly.

