ISLES FIELD SEASON 2009 INTERIM REPORT

S. O. MacDonald and Joseph A. Cook
Museum of Southwestern Biology
University of New Mexico
Albuquerque, NM

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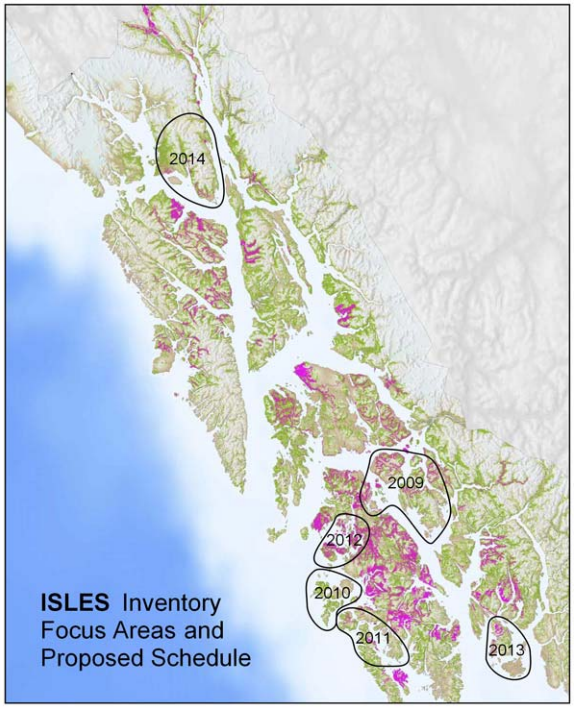
Purpose:

ISLES (*Island Surveys to Locate Endemic Species*) focuses on evaluating the specific status of purported endemics of the Tongass National Forest, Southeast Alaska. Already a number of previously recognized "unique" or endemic forms have been found to have much wider distributions, while others are restricted. This information is essential to prioritizing limited resources related to inventory and monitoring efforts for endemics.

ISLES is a partnership of the Museum of Southwestern Biology (MSB) at the University of New Mexico (UNM), and the Tongass National Forest and other Alaska agencies. It involves two primary efforts: a continuation of the inventory of Southeast Alaska small mammals started in 1991, and an archival interagency network to procure and archive for future study samples of game and other non-small mammal species of the Tongass.



Herein, we report on our 2009 field season aimed at evaluating endemic mammals, amphibians, and other terrestrial organisms of the Tongass National Forest through ISLES and our ongoing Tongass Biodiversity Project. The 2009 field season was extremely successful and added more than 500 mammal specimens to the Tongass archive.

Itinerary:

Haines area, 4-6 July
Wrangell area, 8-15 July
Onslow and Eagle islands, 17-22 July
Zarembo Island, 23-29 July
Shrubby Island, 29-31 July

Participants:

Stephen O. MacDonald, MSB
Robert A. Nofchissey, UNM Health Sciences Center, Division of Infectious Diseases
John P. Kavanaugh, UNM Master's student
Randle D. McCain, UNM undergraduate student
Kendra N. Pesko, UNM School of Medicine, Ph.D. student (4-10 July)
Dr. Diane Goade, UNM Health Sciences Center and School of Medicine (8-15 July)
Dr. Cal Lee, UNM Health Sciences Center (8-15 July)
Karen Blejwas, ADFG Nongame Program—Region 1 (11-15 July)

Agency Support:

U.S.D.A. Forest Service, Wrangell Ranger District: Melissa Cady, Dave Rak, Jackie de Montigny, Tyler Gunn, Mark Pempek, and Francisco Sanchez, acting District Ranger.

Assistance and support were also provided by J.T. Stangl, USFS Program Planning Specialist, Sitka, and Thomas Hanley, USFS Pacific Northwest Research Station, Juneau.

Small Mammal Sampling Results:

4 – 6 JULY 2009 **HAINES** AREA

northwestern deermouse		14	
northern red-backed vole		8	
meadow vole		2	
long-tailed vole		3	
red squirrel		1	
cinereus shrew		7	
dusky shrew		7	
least weasel		1	
TOTALS:	8 SPECIES	43 CAPTURES	522 TRAP NIGHTS

8 – 15 JULY 2009 **WRANGELL ISLAND**

northwestern deermouse		23	
southern red-backed vole		74	
long-tailed vole		9	
northern bog lemming		5	
red squirrel		1	
cinereus shrew		41	
dusky shrew		15	
water shrew		1	
TOTALS:	8 SPECIES	169 CAPTURES	1856 TRAP NIGHTS

12 – 13 JULY 2009 **WORONKOFSKI ISLAND**

northwestern deermouse		9	
TOTALS:	1 SPECIES	9 CAPTURES	140 TRAP NIGHTS

12 – 13 JULY 2009 **VANK ISLAND**

northwestern deermouse		7	
TOTALS:	1 SPECIES	7 CAPTURES	140 TRAP NIGHTS

12 – 13 JULY 2009 **SOKOLOF ISLAND**

meadow vole		8	
TOTALS:	1 SPECIES	8 CAPTURES	157 TRAP NIGHTS

17 – 22 JULY 2009 **ONSLOW ISLAND**

northwestern deermouse		15	
southern red-backed vole		6	
red squirrel		1	

cinereus shrew		16	
dusky shrew		12	
TOTALS:	5 SPECIES	50 CAPTURES	1346 TRAP NIGHTS

19 – 20 JULY 2009 **EAGLE ISLAND**

southern red-backed vole		2	
TOTALS:	1 SPECIES	2 CAPTURES	80 TRAP NIGHTS

23 – 29 JULY 2009 **ZAREMBO ISLAND**

northwestern deermouse		86	
long-tailed vole		1	
red squirrel		5	
dusky shrew		22	
ermine		1	
TOTALS:	5 SPECIES	115 CAPTURES	1550 TRAP NIGHTS

29 – 31 JULY 2009 **SHRUBBY ISLAND**

northwestern deermouse		18	
dusky shrew		2	
TOTALS:	2 SPECIES	20 CAPTURES	672 TRAP NIGHTS

Highlights and Significance:

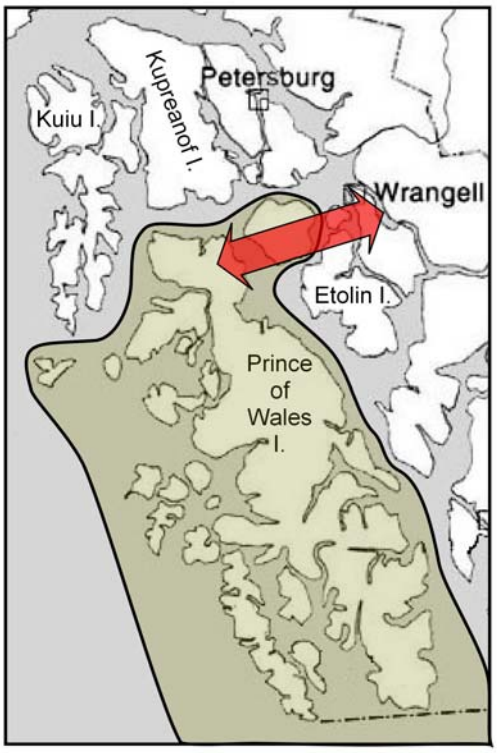
- First vouchered specimen of Least Weasel (*Mustela nivalis*) for Southeast Alaska.
- First specimen record with associated tissues for DNA analysis of ermine (*Mustela erminea*) from Zarembo Island.
- First records of meadow vole (*Microtus pennsylvanicus*) for Sokolof Island.
- Addition of two new and previously unsampled islands, Onslow and Eagle, to the known distribution of the southern red-backed vole (*Myodes gapperi*) in the Alexander Archipelago of Southeast Alaska. The two red-backed voles we were able to secure on Eagle Island appeared morphologically unique and worth of further study.
- Second record of water shrew (*Sorex palustris*) from Wrangell Island (Pats Lake).
- Our capture of five northern bog lemmings (*Synaptomys borealis*) along McCormack Creek, Wrangell Island, constitute the first small series of this species secured from this island since they were first discovered there (and subsequently described as a new species, *S. wrangeli*) by C.P. Streator of the US Biological Survey in 1895.
- First documented records (photos, mouth swabs to UAS) of western toad (*Bufo boreas*) from Onslow and Eagle islands.
- First documented records (photos) of roughskin newt (*Taricha granulosa*) from Eagle Island.

- Discovery near Haines of *Limax maximus*, the Giant Gardenslug, an exotic reported previously from here (R. Forsyth, pers. comm.), near Juneau, and several other towns in Southeastern.
- Failure to document the occurrence of northern flying squirrel (*Glaucomys sabrinus*) on Onslow, Zarembo, or Shrubby islands. We also failed to confirm a verbal report of frogs (not toads) on Onslow Island, despite making a serious attempt to do so. Only a seemingly healthy population of toads was found present.
- All captures were examined for ecto- and endoparasites and, when present, preserved in alcohol. Blood samples were also taken from every individual. For most islands and Southeast Alaska in general, these specimens provide new opportunities to screen for zoonotic human and wildlife parasites and pathogens such as babesia and hantavirus.

NOTE: Due to scheduling difficulties, weather, and transportation issues, we were not able to sample a few of the localities originally proposed in our 2009 scope of work. These included Sergief Island; Barnes Lake, lower Stikine; Stone and other islands adjacent to Onslow Island; and other Kashevarof Islands besides Shrubby.

Related Accomplishments:

- Significant addition of study materials for testing hypotheses of connectivity and faunal affinity among and between inner and outer islands of the Alexander Archipelago south of Sumner Strait (➔).



- Opportunistic collection and preservation of ground beetles, land snails, and tissue samples of Pacific Bananaslug (*Ariolimax columbianus*; tissues from nearly all localities visited). These materials will be loaned to researchers with expertise in these groups (e.g., land snails to malacologist Robert Forsyth in Smithers, British Columbia).
- Mouth swabs on all western toads encountered were sent to Jennifer Moore, UAS, Juneau. Island populations sampled included Wrangell, Onslow, Vank, and Zarembo.