

Brodie Club Meeting

Meeting 908 of the Brodie Club was held in the Faunal Lab, Borden Building, University of Toronto at 8:00, on Tuesday, December 12, 1995.

Chairman: Norm Martin

Attendance: 19 members were present. Guests were Charlotte Lennox (Chas. Lennox), Heather Speakman (J. Speakman), Mary Tasker (R. Tasker), Dr. M.G. Boyer (D. Fowle) and Vicky Draper (D. Fowle).

Minutes of November meeting: with two corrections the minutes of the November meeting were approved.

Announcements: Howard Savage reported that Barry Macklin offered to the Club memorabilia belonging to his grandfather. These include three Brodie Club photographs and a notebook of botanical excursion with H.H. Brown, all dating from the early 1930's. He accepted them for the Club archives.

Speaker: Hugh Currie introduced Anders Brodin. He is a Swedish guest researcher at the Department of Psychology, University of Toronto, where he studies memory in chickadees. This evening Brodin spoke about, "Food hoarding in titmice and chickadees"

His current work is comparing the blackcapped chickadee with the boreal chickadee. He makes use of the Bendell field station at Gogama.

He reviewed his doctoral studies on the willow tit in northern Sweden. These birds hoard plant food mostly from August through November as an adaptation for winter survival. His objective was to determine to what degree hoarding and recovery through memory was more effective than pilfering another bird's hoard. Techniques included field and laboratory observation of marked food which was both hoarded and pilfered. The food was marked by a short-lived radionuclide of sulphur. Consumption was estimated by measuring radioactivity on daily growth increments of feathers.

He concluded that dominant birds within a territory store their food slightly higher in trees than subordinants. Laboratory studies underestimate field hoarding memory because there are fewer visual cues in the lab. Hoard memory declines with increasing time.

Memory is focussed in the hippocampus and these neurons regenerate each year.

Questions and comments:

Responding to a question of Bodsworth, the speaker mentioned that boreal chickadees store more than blackcapped chickadees, perhaps related to the smaller boreal flocks of 2-5 birds.

Bruce Falls asked if finding food in typical locations became more important than memory after an initial period. This seemed to be the case.

Bodsworth asked if hoarding was associated with intermittent food supply and Brodin said no, it was linked with abundant food.

Bodsworth thanked the speaker and this was followed by hearty applause.

Members observations:

Bruce Falls noted that a chipmunk in one of the speaker's slides was *Eutamias* (least chipmunk), rather than the local *Tamias* (eastern chipmunk).

McAndrews reported collection of two plants rare to Canada: *Verbenesia alternifolia* (wing-stem) was collected from an old garden near the Metro Zoo and *Mimulus glabratus* (monkey flower) was collected from the Humber Marshes and from near Crawford Lake.

Janet Cooper reported a chipmunk in Queen's Park.

Don Young reported a northern shrike in his back yard.

Fowle reported a red-bellied woodpecker at two feeders in Thornhill.

Bryant observed that the *Phellodendron* tree in Mt. Pleasant cemetery attracted robins.

Riley reported abundant snow buntings, and that wild turkeys were hampered by deep snow.

Speakman reported Bohemian waxwings at his cottage were feeding on grapes.

Charles Lennox (corresponding member) at his feeder in Cape Breton sighted an oriole with bullock oriole pattern but Baltimore colour.

Currie reported both boreal and great grey owls east of Toronto.

Martin declared the meeting adjourned at 9:45 and this was followed by conversation and Christmas goodies.

The next meeting will be held on Tuesday January 16, 1996.

SPEAKER will be Bruce Falls

SUBJECT: Galapagos: a video.