

## NOTE TAKING

In upper left-hand corner of each and every notebook page enter collector's name and year. Set up headings for each page of catalogue, itinerary or journal, and species accounts as follows:

## Catalogue

9 mi. W Benton, 8300 ft., Mono Co., Calif.

June 20, 1942

2430 | ♂ Peromyscus maniculatus 172-88-20-16. Wt. 17.5 gm.

## Journal

North Santiam River, 3400 ft., Linn Co., Ore.

June 10 | (Begin here)

Dryobates villosus

June 9 | 4 mi. SW Prineville, 3300 ft., Crook Co., Ore. -- (Begin here.)

In catalogue enter for each specimen all details of data pertaining to take -- collector's number left of red line, and also there, if not conventional "skin," whether (if) skeleton, skull-only, or alcoholic; to right of red line enter sex, name of species, breeding data, measurements, weight, and, on occasion, color of iris and soft parts and deposition of fat. Use a vernacular name of the species, if you are not sure of the scientific name.

Write full notes, even at risk of entering much information of apparently little value. One cannot anticipate the needs of the future, when notes and collection are worked up. The following are suggested topics, but do not restrict yourself to these alone. Be alert for new ideas and new facts.



Describe vegetation (saving plant-press samples of species not positively known), nature of ground, slope exposure, and drainage of each belt of animal life collected in. Describe exact location of trap lines, and also enter a sketch, in profile, or surface view, or both, to illustrate the location and relations of the different habitats crossed. Properly marked maps for each region worked should ultimately be bound in with the field notes of at least the leader of a party.

Keep record of closeness of settings of traps, distance covered, and results of each night's trapping; give number and type of traps put out in each habitat and number of animals of each species captured in each habitat (whether or not preserved), with sex, age, and breeding condition of each animal.

Keep full record of breeding data: Number and approximate size (length) of embryos, or of young found in nests; state of incubation in eggs. Dig out burrows if practicable; make drawings to scale, plan and elevation; describe fully.

Record food plants; keep specimens for identification where not known by a definite name; preserve cheek pouch contents, contents of gullets, stomachs of mammals and large birds. If these are not saved, identify and record contents.

Note regularly in notebook all "pick-ups," that is, odd skulls or fragments of animals of whatever source, serially numbered along with specimens of the more usual sort. Give full information, as with odd skulls secured from trappers, so that labels complete in all data can be made.

Keep frequent censuses of diurnal birds and mammals, with locality preferences indicated. When leaving a well-worked locality, enter a summary of



species observed, with remarks of a general nature, such as relate to local conditions of terrain, human activities, etc.

As opportunity affords, interview old residents, trappers, National Forest and National Park rangers in each locality visited. Always record accurately the name, official position or occupation, and address of each person giving information; give also your opinion as to his reliability. Note general attitude of men interviewed as to game laws and conservation and record specific comments, complaints or criticisms.

Ascertain present numbers and distribution of large mammals and birds as compared with former status. So far as possible get definite statements expressing ratio of abundance now, compared with a definite number of years back. Record fully all evidence as to human influence upon original or "natural" balance. Record present economic relations of vertebrate animal life, that is, effect on agriculture, stock raising, etc., with full details. Note opinions as to whether species should be protected or destroyed. Describe local methods of capture or destruction; give your opinion as to their effectiveness and justification.

Opportunity offering, record detailed observations on effects upon vertebrate animals, of severe storms, floods, fires, over-grazing, lumbering, road-building, or tree-planting.

Enter as much information as is feasible under species accounts. It will be easier to look for it there at a later date.



## SUGGESTIONS AS TO LIFE HISTORY NOTES

(Birds, Mammals, Reptiles, Amphibians)

Markings and coloration (meanings apparent as associated with significant circumstances: directive, disruptive, concealing).

Speed (gait, climbing, swimming, walking, running, flying); tracks.

Abundance: by impression; censuses.

Plant associates: habitat; environment (define distinctive ecologic niche or biotope in which each animal is found).

Range (home range or "cruising radius" of individual, topographic and geographic range of species, any indications of change in range).

Call-notes or voice (interpretations whenever circumstances give any clue); "songs" of birds.

Migrations (regular, irregular, local, altitudinal, geographical); movements and flight.

Degree of gregariousness (including "social instincts"); manner or means of communication (as voice, gesture, touch, and smell-signals).

Nests, dens and lairs; breeding habits (including number of young, length of breeding period, mating; whether promiscuous, polygamous, monogamous; relations of individuals of family group to each other); modes of locating nests or homes; sanitation; solicitude; reactions of young; care of young; mastology (distribution of mammary glands).

Boldness; belligerence; intolerance; shyness.

Food-habits; forage range; manipulation of food; storage.

Scatology (dung or feces).



Acuteness of the various senses (touch, taste, sight, hearing, smell, and direction).

Enemies; disease (parasites, internal and external).

Odd partnerships; commensalism; any biotic interrelationships apparent.

Age (length of life of individual).

Refuges: from enemies; for resting or roosting.

Dormancy: hibernation or estivation; evidences of; places where undergone.

Note -- Read above suggestions every few days, devoting half an hour or so to thoughtful consideration of the objects of our field work, which are: To ascertain everything possible in regard to natural history of the vertebrate life of the regions traversed, and to make careful record of the facts gathered in the form of specimens and notes, to be preserved for all time. All this is for the information of others; strive to make your records in all respects clearly intelligible. Remember that the value of our manuscripts increases as the years go by and faunal changes take place. Some of our earlier notebooks describe conditions now vanished in the localities they dealt with.

Revised from previous editions prepared by J. Grinnell.

Alden H. Miller

Museum of Vertebrate Zoology.  
July 2, 1942.