OREGON STATE UNIVERSITY HERPETOLOGICAL COLLECTION

The herpetological research collection at OSU is housed in Cordley Hall (S. J. Arnold, Curator). The research collection consists of more than 55,000 ethanol-preserved amphibians and reptiles, and approximately 24,000 frozen tissue samples. A smaller series of preserved amphibians and reptiles is part of the Vertebrate Teaching Collection (R. T. Mason, Curator) and is also housed in Cordley Hall.

The research collection was begun by herpetologists in the Department of Zoology. Prof. Robert T. Storm and his students were especially instrumental in building a collection focused on Oregon and adjacent regions in the Pacific Northwest. Much additional material in the collection was assembled in the course of quantitative genetic and behavioral research by S. J. Arnold and L. D. Houck and their students. This portion of the collection (about 40,000 specimens) is biased towards taxa that have been central to the Houck/Arnold research program (see table below). The natricine snake collection, for example, includes approximately 2900 families consisting of mothers and their broods. Most of these families are the progeny of pregnant females collected in the wild, but approximately 250 families were produced by captive breeding within and between populations.

Several digitized data sets are indexed to the whole animal and frozen tissue collection. The data consist of: (1) a specimen catalog indexed by specimen number with data on site and date of capture, species identification, sex, body size. (2) a frozen tissue catalog indexed by specimen number, with data on type of tissue. (3) a birth catalog indexed by specimen number with data on the parents of captive-born broods, birth weights and mass, size and mass of dam. (4) field notes representing the period 1962-present. Notes from the period 1970-present have been digitized and are indexed by locality and date. (5) a collection of several hundred locality and specimen photographs (some digitized) indexed by locality and date. (6) a gazetteer with data on the 1200+ localities represented in the collection, giving latitude, longitude, county and country for each locality. The collection catalog is searchable through **Vertnet**.

Numbers of specimens of the best-represented taxa:	
Thamnophis elegans	12,207
***Thamnophis couchii* complex**	3,070
Thamnophis sirtalis	8,335
Nerodia rhombifer	3,086
Nerodia taxispilota	2,016
***Desmognathus ochrophaeus* complex**	2,412
Thamnophis ordinoides	2,270
***Plethodon jordani* complex**	1,931
Thamnophis radix	568
Nerodia erythrogaster	128

The collection is significant because of the depth of representation for particular taxa, its family structure, the associated frozen-tissue collection and field notes, and the several indexed

data sets. A survey of museum collections in the United States indicates that the OSU collection includes more specimens of several taxa (e.g., *T. elegans, T. couchii* complex, *T. sirtalis, N. rhombifer, N. taxispilota*) than any other museum. In some instances (e.g., *T. elegans, T. couchii* complex), number of specimens exceeds the combined holdings of all other museums. The depth of these holdings, together with the frozen-tissue collection, permit more detailed investigations of geographic variation (and hence microevolutionary pattern) than are possible with any other snake taxa. The family-structure of the natricine snake collection is unusual among museum collections. This family-structure permits quantitative genetic analysis of any age-invariant trait that can be scored on preserved specimens.