Great Basin Naturalist

Volume 29 | Number 2 Article 5

7-31-1969

Spiders of the National Reactor Testing Station

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SPIDERS OF THE NATIONAL REACTOR TESTING STATION[1]

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Ecological investigations conducted by Brigham Young University from June 1966 to September 1967 at the National Reactor Testing Station in southeastern Idaho (Figs. 1, 2) were directed specifically toward the ectoparasites of vertebrates (Allred, 1968). Secondarily, however, some ground-dwelling, free-living arthropods were collected in can pit-traps used for the capture of reptiles and rodents. Considering the relatively little effort expended, an unusual variety of spiders was collected. These were kindly identified by Dr. Willis J. Gertsch, American Museum of Natural History. Their listing here should provide a basis for further studies of these important arthropods in the Great Basin and other desert areas of the western United States.

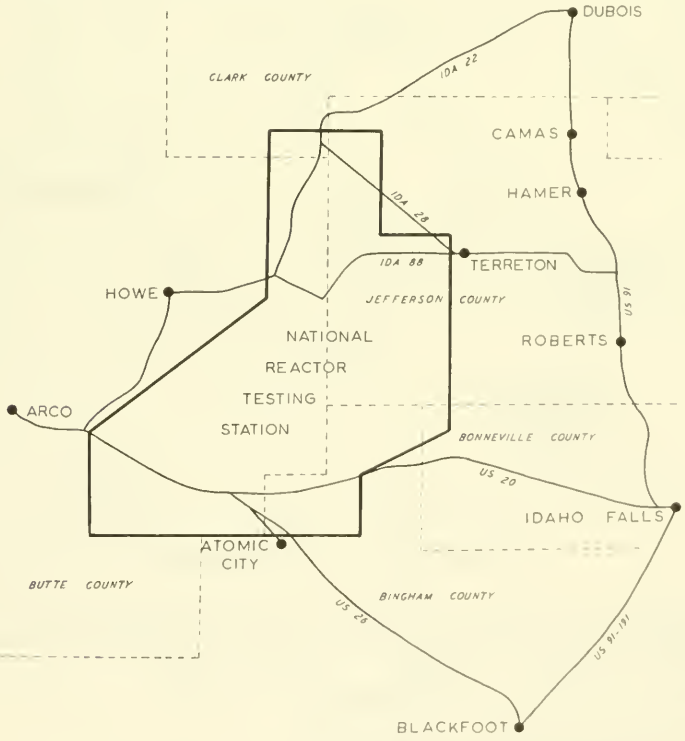

Fig. 1. Location of the National Reactor Testing Station in relationship to some cities in southeastern Idaho.

[1]BYU - AEC publication no. C00-1559-3 under sponsorship of the Atomic Energy Commission.

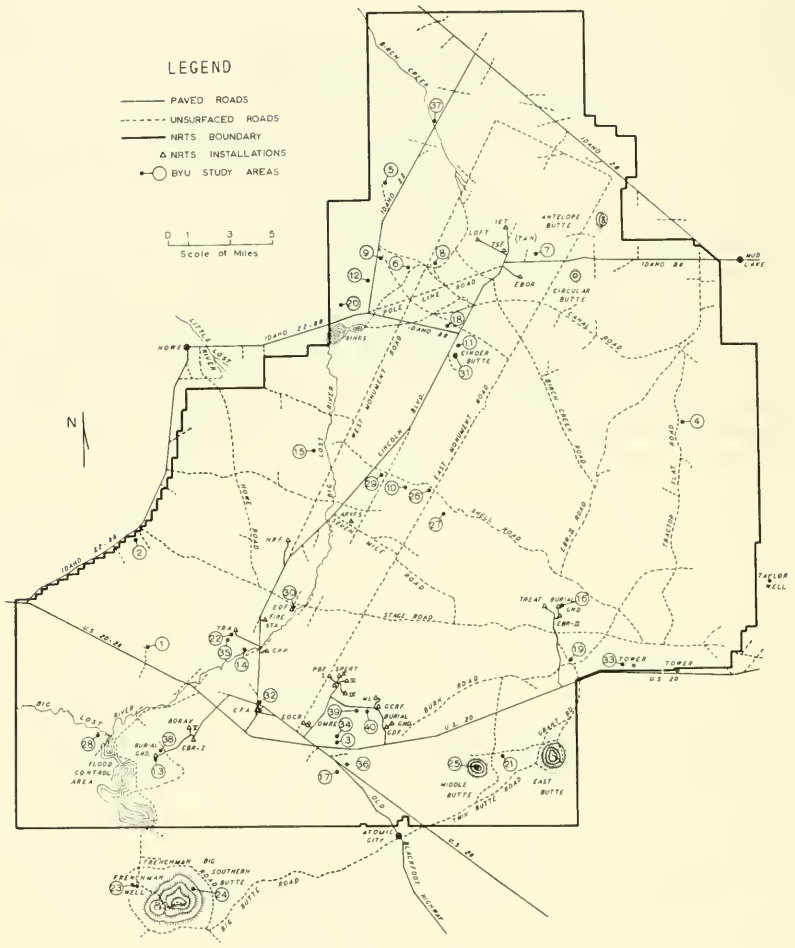

Fig. 2. Principal study areas at the National Reactor Testing Station.

Annotated List of Species

Antrodiaetus montanus: m*; area 6; Oct.
Calilena restricta: 15m 7f 5im; areas 1-12 (except 4, 5, 9), 18; June-Oct. (mostly Aug.).
Callilepis eremellus: m f; area 1, 19; June, July.
Castianeira descripta: f; area 3; Sept.
Ceratinella acerea: f; area 10; May.
Circurina grandis: 1m; area 21.
C. parma: 13m 2f; areas 6, 10, 11, 12, 23; April, Oct. (mostly), Nov.
C. utahana: m; area 11; Nov.

Circurina new species: 6m; areas 6, 10, 21; Oct., Nov.
Dictyna coloradensis: 2m 2f; area 10; July.
Drassodes robinsoni: 4m 2f 8im; areas 1, 2, 6, 7, 10; June, Aug., Oct., Nov.
Drassyllus mannellus: 7m 3f 1im; areas 1, 3, 6, 10, 18; May-July, Sept.
Ebo mexicanus: 5f; areas 1, 6, 7; June, July, Nov.
Enophognatha wyuta: f; area 10; June.
Euryopis scriptipes: m; area 2; July.
Gnaphosa brumalis: 9m 10f 2im; areas 3, 6, 8; June-Aug.
Gnaphosa sp.: 2m 1f 8im; areas 1, 2, 7, 8, 10, 11; April-Aug.
Haplodrassus eunus: 15m 14f 11im; areas 1, 6, 7, 10, 11, 12, 21; April, May, Oct., Nov.
Herpyllus sp.: im; area 8; Aug.
Latrodectus hesperus: 13im; areas 8, 12; July-Sept.
Metaphidippus sp.: im; area 6; July.
Micaria foxi: m f; areas 1, 3; June, Aug.
M. gosuita: f; area 12; Sept.
Micaria new species A: 3m 4f; areas 3, 12; June (mostly), Aug.
Micaria new species B: 2m areas 2, 12; June, Aug.
Misumenops sp.: im; area 10; July.
Pardosa new species: 2f; area 8; July.
Pellenes washonus: m; area 12; July.
Phidippus altanus: m; area 3; Aug.
P. formosus: m; 1im; areas 3, 7; Aug.
Philodromus alascensis: 1im; area 23.
Poecilochroa atomistica: f im; areas 2, 3; July, Aug.
Schizocosa avida: 46m 34f 154 im; areas 1, 2, 3, 6, 7, 8, 10, 11, 12, 18, 19, 21, 23; males were taken from April to July (mostly in July), females from April to Aug., and immatures from April to Nov. (mostly Aug., Oct., Nov.).
Steatoda albomaculata: f; area 3; Sept.
Tarentula kochi: 37m 19f 13im; areas 1, 3, 6, 7, 10, 11, 12, 23; June, Aug.-Nov. (mostly Oct.).
Thanatus altimontis: 9m 1f; areas 1, 2, 3, 7, 12; June-Aug.
Xysticus coloradensis: 10m 1im; areas 2, 5, 6, 7, 11, 12, 18; June, July, Sept.-Nov.
X. knowltoni: 7m 5f 1im; areas 1, 3, 10, 12; May-July, Nov.
X. montanensis: 3m 3f; areas 1, 3, 7, 10; April-June.
X. nigromaculatus: 2m; areas 7, 10; June.
X. qulosus: m; area 6; Oct.
Zelotes pullatus: 11m 8f 2im; areas 1, 2, 3, 7, 10, 11, 12; April-Oct.
Z. puritanus: 4f; areas 2, 3, 19; July, Aug.

*m = adult male, f = adult female, im = immature or juvenile.

Summary

From June 1966 to September 1967 approximately 500 spiders representing 42 species in 31 genera were collected in can pit-traps at the National Reactor Testing Station in Idaho. Four of the species

are new to science. The greatest variety of species was found in study area 10 where the vegetation analysis was 68% *Artemisia*, 7% *Opuntia*, 7% mixed grasses, and 5% miscellaneous forbs. The fewest numbers of species were found in study areas 7 and 11, typified predominantly by *Chrysothamnus* plants. Males of all species of spiders combined were collected from April to November. Greatest numbers were found in October. Females of all species were taken from April to November, with slightly more in October than in other months. Immature spiders also were found from April to November, with greatest numbers occurring in August, October, and November. The species that were the most widespread over the station are *Schizocosa avida* and *Calilena restricta*. The most abundant species was *S. avida; Tarentula kochi* was only half as abundant as *S. avida*, but twice as common as any other species.

References

Allred, D. M. 1968. Ticks of the National Reactor Testing Station. Brigham Young Univ. Sci. Bull., Biol. Ser. (in press).