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Notes on the Distribution of Oregon Bats

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Abstract

Distributional data are given for 15 species of bats known to occur in Oregon: Antrozous pallidus, Eptesicus fuscus, Euderma maculatum, Lasionycteris noctivagans, Lasiurus cinereus/ Myotis californicus, M. evotis, M. leibi, M. lucifugus, M. thysanodes, M. volans, M. yumanensis, Pipistrellus hesperus, Plecotus townsendi, Tadarida brasiliensis. Distribution is also discussed in terms of physiography.

KEYWORDS: Bats, animal populations, Oregon.

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Introduction

Except for Bailey (1936), little information is available on the distribution of Oregon bats. What information does exist simply provides records of local occurrence or locality records incidental to other studies (Albright 1959, Barbour and Davis 1969, Booth 1945, Constantine 1961, Cressman and Reed 1938, Cross,¹ Dalquest 1943, Galen and Bohn 1979, Hansen 1956, Hatfield 1936, Jewett 1926, 1930, 1955, Maser and Franklin 1974, Miller 1897, Roest 1948, 1951, Sanborn 1953, Stager 1945, Sturges 1955, Voth 1963).

This paper summarizes our data, along with other available information, and examines the distribution of bats in relation to habitat and physiography. We have not made an exhaustive museum search nor is it our intent to present a taxonomic study.

Methods and Materials

Between 1970 and 1980, we attempted to gather as much field data as possible on the distribution of Oregon bats. They were shot, mistnetted,² and collected from day and night roosts in many parts of the State. Voucher specimens are available from the museums as indicated. Museum acronyms used in this paper are as follows: (1) Oregon State University, Department of Fish and Wildlife, Corvallis, Oregon, OSU; (2) Puget Sound Museum of Natural History, University of Puget Sound, Tacoma, Washington, PSMNH; (3) Southern Oregon State College, Department of Biology, Ashland, Oregon, SOSC; and (4) United States National Museum, Biological Survey Collection, Washington, D.C., USNM.

¹Cross, S. P. 1977. A survey of the bats of Oregon Caves National Monument. Unpubl. rep. submitted to the Natl. Park Serv., Contract CX-9000-6-0061.

²To mistnet bats is to catch them in a fine nylon net.

As is often the case with distributional papers that deal with literature and specimen records, it is difficult to find exact locations, either on a map or in the field. This paper is no exception, but to add all the legal descriptions would greatly lengthen the paper. Most of the legal descriptions are available, however, from these sources: (1) Puget Sound Museum of Natural History—on specimens, in catalogs, and in field notes, (2) Southern Oregon State College—on specimens, in catalogs, and in field notes, (3) all locations from Saul et al.³ have accompanying legal descriptions with the publication. In addition, McArthur (1965) may aid in pinpointing locations from other sources and for which no legal descriptions are given.

³Saul, S. M., M. Swisher, C. Oakley, and others. [1977.] A survey of bat populations and their habitat preferences in southern Oregon. A student-oriented studies project funded by Natl. Sci. Found, through South. Oreg. State Coll., Ashland. 89 p.

Results

Distributional data are listed in alphabetical order by county and location (fig. 1). The bats also are listed in alphabetical order by genus, species, and subspecies (figs. 2-16).

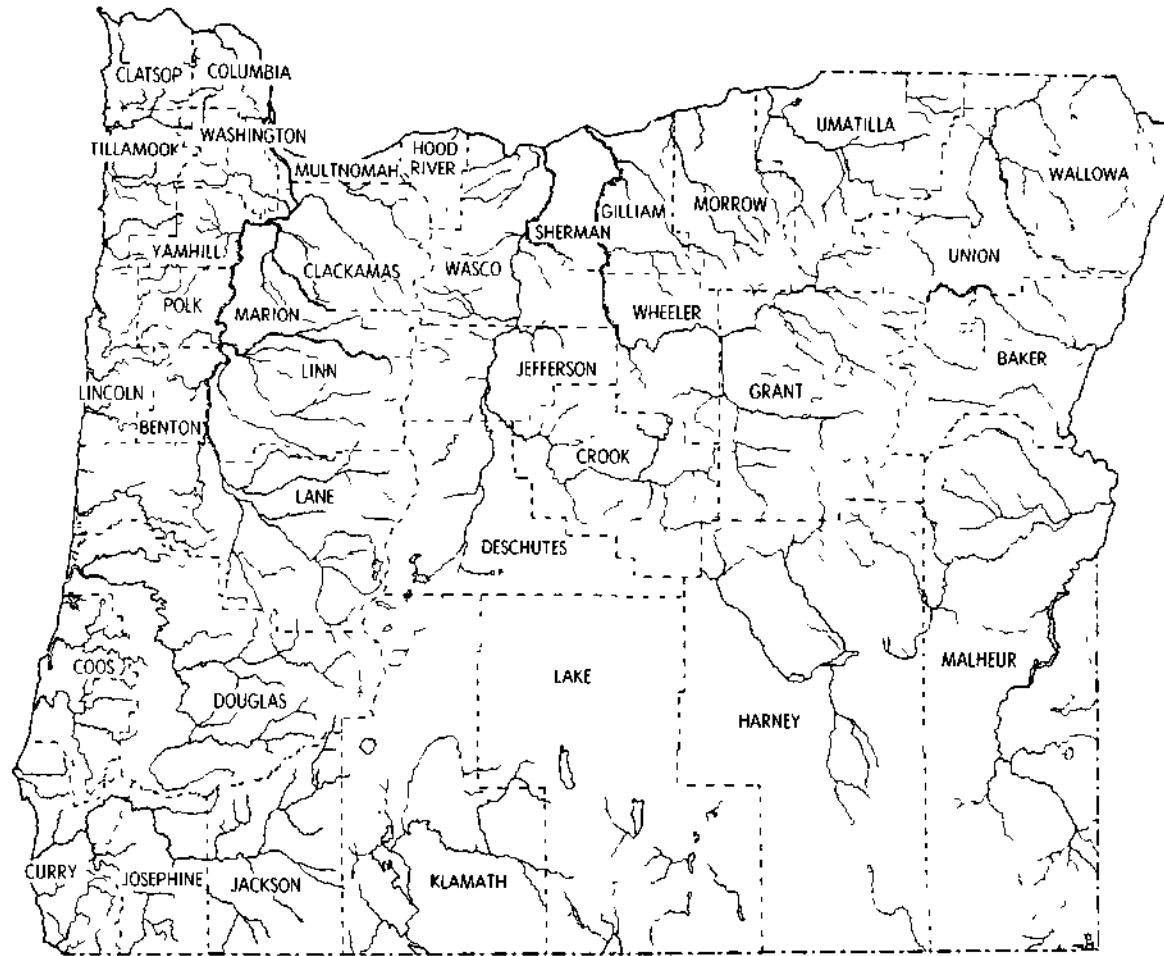


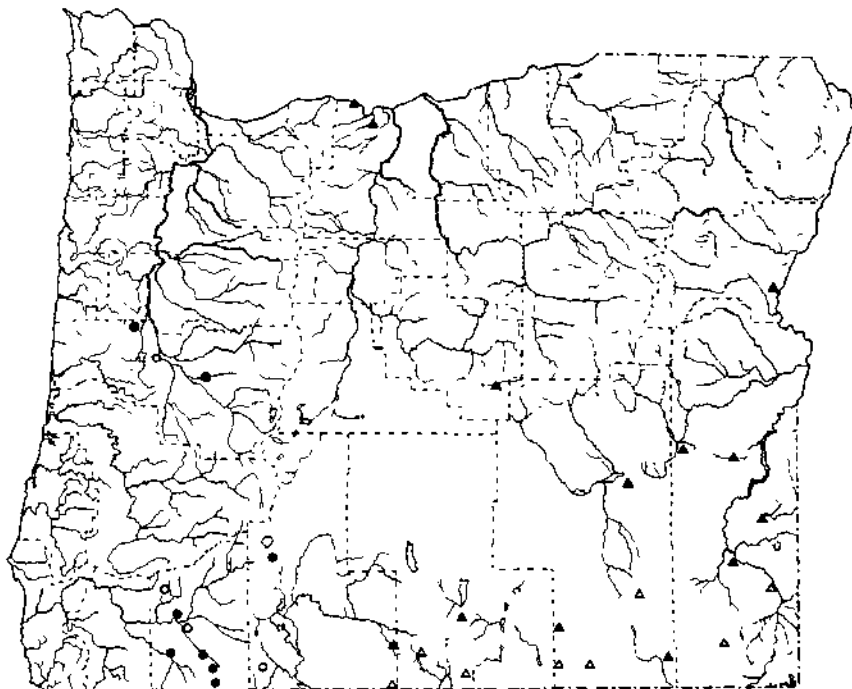
Figure 1.—Oregon counties.

Antrozous pallidus (fig. 2):

Antrozous pallidus pacificus—JACKSON CO.: East Pilot Spring (PSMNH), SOSC); Medford (Stager 1945); ridge between Salt Creek and Evans Creek, 40 mi N. Rogue River Post Office (Bailey 1936); 4 mi S. Ruch (PSMNH); Talent (SOSC); sec. 30, T. 35S., R. 2W. (SOSC); sec. 5, T. 38S., R. 3W. (see footnote 3); sec. 3, T. 41S., R. 2E. (see footnote 3). KLAMATH CO.: Fort Klamath (USNM); Onion Springs (see footnote 3). LANE CO.: Eugene (Bailey 1936); Fall Creek, T. 17S., R. 3W. (OSU); 11 mi W. Junction City (PSMNH). MULTNOMAH CO.: Portland (Bailey 1936).

Antrozous pallidus cantwelli—BAKER CO.: Home (USNM). CROOK CO.: Twelve Mile [Twelvemile] (USNM). HARNEY CO.: Catlow Cave, 110 mi S. Burns (Cressman and Reed 1938); Grey Springs Reservoir (SOSC); Pikes Creek (see footnote 3); Potholes (see footnote 3); 3.3 mi S. Princeton (PSMNH); Road Springs (SOSC). KLAMATH CO.: Jims Valley (SOSC); T. 41S., R. 15E., sec. 13 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Mesman Creek Pond (see footnote 3); Woodchopper Springs (SOSC); T. 40S., R. 21E., sec. 11 (see footnote 3). MALHEUR CO.: Batch Lake (PSMNH); Cascade Reservoir (see footnote 3); Dry Creek, T. 24S., R. 41E., sec. 4 (PSMNH); Horse Camp Canyon (see footnote 3); 2 mi NW. Riverside (USNM); T. 32S., R. 42E., sec. 17 (SOSC). WASCO CO.: Memaloose State Park, 2.5 mi E. Mosier (PSMNH); The Dalles (USNM).

Figure 2.—Known distribution of Antrozous pallidus in Oregon. Circles = subspecies pacificus; triangles = subspecies cantwelli. Solid symbols = specimens; open symbols = literature records.



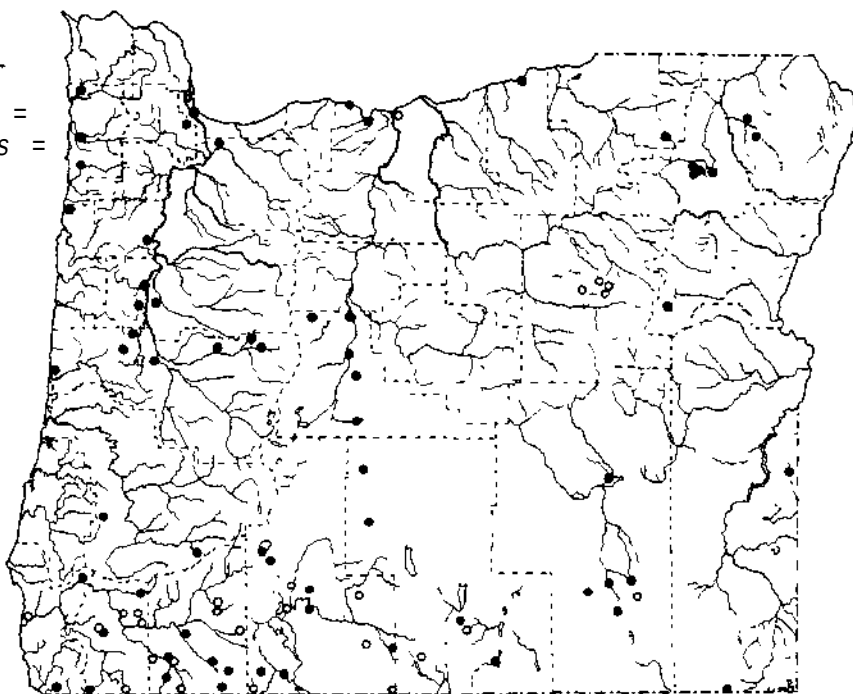
Eptesicus fuscus (fig. 3):

Eptesicus fuscus bernardinus—BAKER CO.: 8 mi NE. Unity (PSMNH). BENTON CO.: Corvallis (OSU); Peavy Arboretum, 7 mi N. Corvallis (OSU); William L. Findley National Wildlife Refuge (PSMNH). CLACKAMAS CO.: Milwaukie (PSMNH). CURRY CO.: Marial (SOSC); T. 35S., R. 14W., sec. 33 (see footnote 3). DESCHUTES CO.: Arnold Ice Cave, 16 mi SE. Bend (USNM); Bend (USNM); Farewell Bend (USNM); Indian Ford Campground (PSMNH); Lower Bridge (OSU); Paulina Lake (USNM); Sisters (USNM); Three Sisters, N. slope, 5000 ft (USNM). DOUGLAS CO.: Drew (USNM); Reston (USNM). GRANT CO.: Camp Creek^{4 5}; Coxie Meadow (see footnote 4); Keeney Meadow (see footnote 4); T. 11S., R. 29E., sec. 35 (see footnotes 4 and 5). HARNEY CO.: Catlow Valley (PSMNH); Malheur National Wildlife Refuge (PSMNH); 1 mi SE. Blitzen Crossing Campground, Steens Mountain (PSMNH); Kiger Gorge, Steens Mountain (USNM); Steens Mountain, T. 33S., R. 34E., sec. 3 (OSU); Steens Mountain, T. 33S., R. 34E., sec. 9 (OSU); Pikes Creek (see footnote 3). JACKSON CO.: Ashland (PSMNH, SOSC); Chappel Spring (see footnote 3); East Pilot Spring (PSMNH); Fredenberg Butte (see footnote 3); 7 mi S. Medford (PSMNH); McKee Bridge (SOSC); 4 mi S. Ruch (PSMNH); Shoat Spring (SOSC); T. 35S., R. 2E., sec. 35 (see footnote 3); T. 36S., R. 4E., sec. 32 (see footnote 3); T. 38S., R. 3W., sec. 5 (see footnote 3); T. 38S., R. 3W., sec. 6 (see footnote 3); T. 39S., R. 4W., sec. 4 (see footnote 3); T. 40S., R. 2E., sec. 25 (SOSC).

⁴Cross, S. P., and E. McMahon. [1978]. The effect of changes in grazing management strategies on selected wildlife in the Oregon Range Validation Area—progress report. Unpublished report on file at the USDA For. Serv. Range and Wildl. Hab. Lab., La Grande, Oreg. 7 p.

⁵Cross, S. P., and E. McMahon. [1979]. The effects of some forest and range management strategies on selected wildlife in the Oregon Range Validation Area—final report. Unpublished report on file at the USDA For. Serv. Range and Wildl. Hab. Lab., La Grande, Oreg. 50 p.

Figure 3.—Known distribution of Eptesicus fuscus bernardinus in Oregon. Solid symbols = specimens; open symbols = literature records.



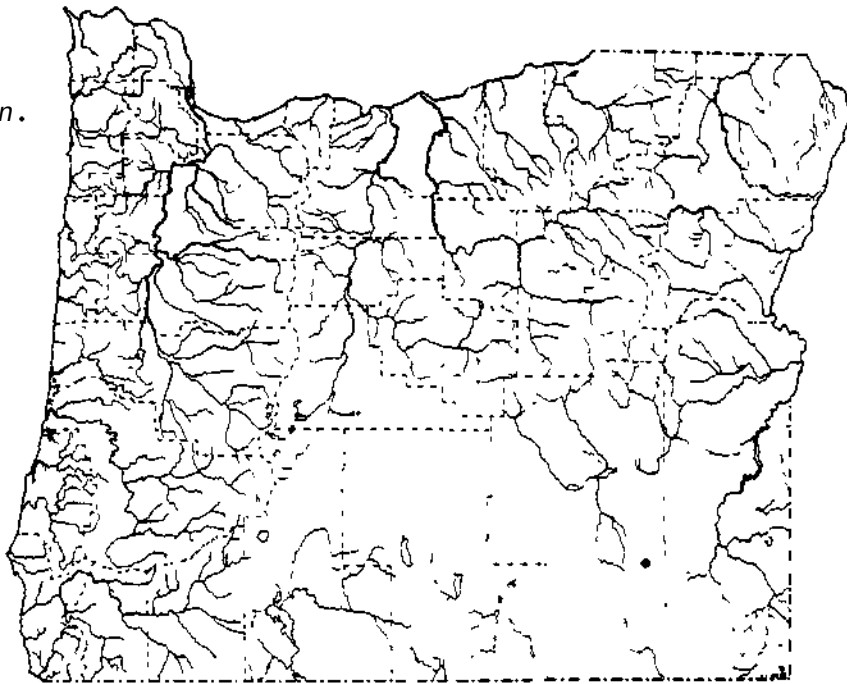
JOSEPHINE CO.: Horse Creek (see footnote 3); Jumpoff Joe Creek (PSMNH); Oregon Caves National Monument (see footnote 1); Robertson Bridge (see footnote 3); Waldo Hill (SOSC); T. 35S., R. 6W., sec. 13 (see footnote 3); T. 36S., R. 5W., sec. 30 (see footnote 3); T. 37S., R. 8W., sec. 14 (SOSC). KLAMATH CO.: Crater Lake National Park, Mt. Mazama (USNM); Dice Crane Springs (see footnote 3); Dice Springs (see footnote 3); Fort Klamath (USNM); Jims Valley (SOSC); 6 mi W., 1 mi S. Keno (OSU); Onion Springs (see footnote 3); Seven Springs (see footnote 3); T. 33S., R. 10E., sec. 31 (SOSC); T. 35S., R. 8E., sec. 9 (see footnote 3); T. 36S., R. 9E., sec. 21 (SOSC); T. 40S., R. 5E., sec. 21 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Adel (OSU); 6 mi W. Port Rock (USNM); Mesman Creek Pond (see footnote 3); 10 mi SW Silver Lake (USNM); Woodchopper Springs (SOSC); T. 37S., R. 21E., sec. 11 (see footnote 3). LANE CO.: 11 mi W. Cheshire (OSU); Eugene (USNM); H. J. Andrews Experimental Forest (PSMNH); 10 mi W. Junction City (PSMNH); 11 mi W. Junction City (PSMNH); McKenzie Bridge (OSU, USNM); Mercer (USNM); Vida (USNM). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH). LINN CO.: 3.5 mi NW, Shedd (PSMNH). MALHEUR CO.: McDermitt (USNM); Succor Creek State Park (PSMNH).

MORROW CO.: 8 mi E. Boardman (PSMNH). MULTNOMAH CO.: Portland (OSU, PSMNH). POLK CO.: Monmouth (PSMNH). SHERMAN CO.: Millers [Miller] (Bailey 1936). TILLAMOOK CO.: Beaver (OSU); Nehalem (OSU); Tillamook (OSU). UMATILLA CO.: Meacham (USNM). UNION CO.: Starkey Experimental Forest and Range (PSMNH). WALLOWA CO.: 15 mi S., 2 mi E. Lostine (OSU); 16 mi S., 3 mi E. Lostine (OSU); 21 mi S., 6 mi E. Lostine (OSU); 19 mi S., 4 mi E. Lostine (OSU); Powwatka Ridge (PSMNH); Shady Campground, Lostine River (PSMNH); 11.5 mi NNE. Wallowa (PSMNH). WASCO CO.: The Dalles (PSMNH). WASHINGTON CO.: Cedar Hills (PSMNH).

Euderma maculatum (fig. 4):

Euderma maculatum—HARNEY CO.: Mickey Springs (SOSC).

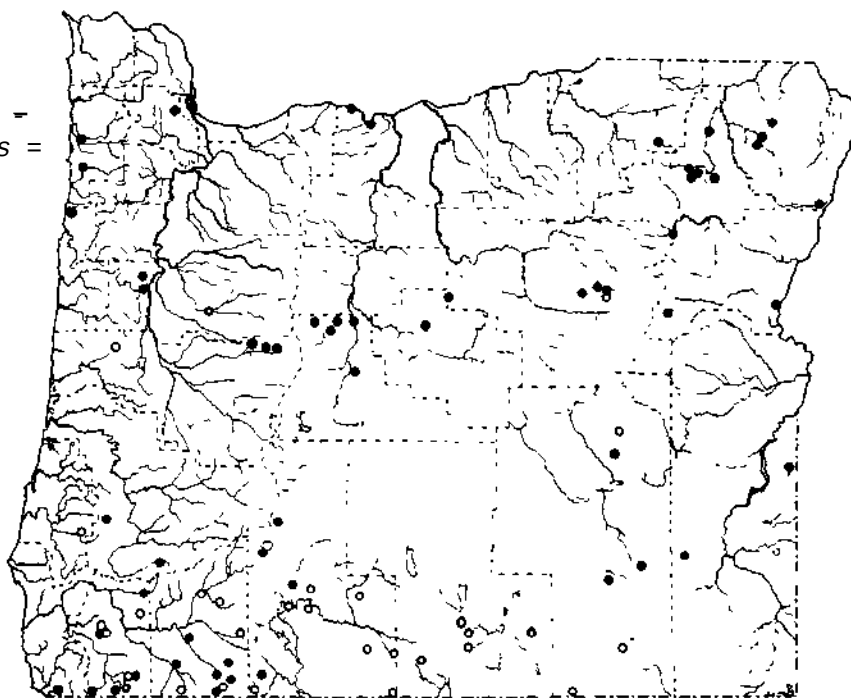
Figure 4.—Known distribution of Euderma maculatum in Oregon.
Solid symbol = specimen.



Lasionycteris noctivagans (fig. 5):

Lasionycteris noctivagans—BAKER CO.: Anthony (USNM); Home (USNM); 8 mi NE. Unity (PSMNH). BENTON CO.: Corvallis (Bailey 1936); 5 mi N. Corvallis (OSU); 7 mi N. Corvallis (PSMNH). COOS CO.: Remote (Bailey 1936). CROOK CO.: 20 mi E. Prineville (USNM). CURRY CO.: 10 mi E. Brookings (PSMNH). DESCHUTES CO.: Bend (USNM); Indian Ford Campground (PSMNH); Lower Bridge (OSU); Sisters (USNM); Squaw Creek, 10 mi NE. Sisters (OSU). DOUGLAS CO.: Anchor (USNM); Reston (USNM). GRANT CO.: Camp Creek (PSMNH); Coxie Meadow (see footnote 4); Keeney Meadow (PSMNH); T. U.S., R. 29E, sec. 35 (PSMNH); T. U.S., R. 30E., sec. 32 (PSMNH). HARNEY CO.: 1 mi SE. Blitzen Crossing Campground, Steens Mountain (PSMNH); Kiger Gorge, Steens Mountain (USNM); Old Camp Harney, about 2 mi NE. of the present town of Harney (USNM); Stallion Waterhole (see footnote 3); T. 37S., R. 32-3/4E., sec. 36 (see footnote 3). JACKSON CO.: Anderson Butte Road (SOSC); 6 mi S. Ashland (SOSC);

Figure 5.—Known distribution of Lasionycteris noctivagans in Oregon. Solid symbols = specimens; open symbols = literature records.

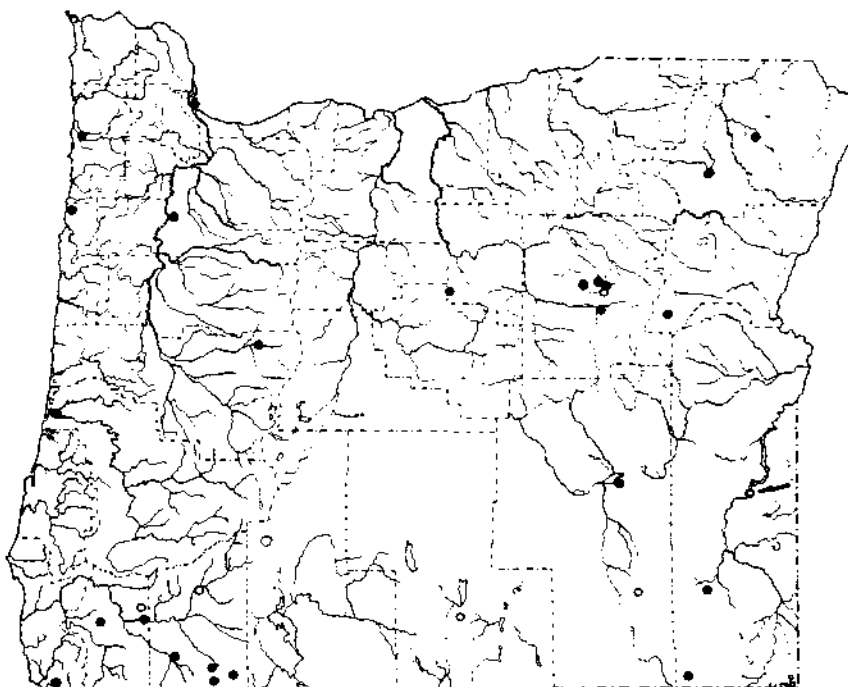


Chappel Spring (see footnote 3); Dead Indian (SOSC); East Pilot Spring (PSMNH); Fredenberg Butte (see footnote 3); 7 mi S. Medford (PSMNH, SOSC); Shoat Springs (SOSC); T. 34S., R. 1W., sec. 23 (see footnote 3); T. 36S., R. 4E., sec. 2 (see footnote 3); T. 38S., R. 3W., sec. 5 (SOSC); T. 40S., R. 2E., sec. 25 (see footnote 3); T. 41S., R. 2E., sec. 3 (SOSC). JOSEPHINE CO.: Bolan Lake (PSMNH); Horse Creek (see footnote 3); Jumpoff Joe Creek (PSMNH); Little Sugarloaf (SOSC); Oregon Caves National Monument (Roest 1951); Swede Basin (SOSC); Waldo Hill (SOSC); T. 35S., R. 6W., sec. 13 (see footnote 3); T. 37S., R. 8W., sec. 14 (see footnote 3); T. 40S., R. 6W., sec. 6 (see footnote 3). KLAMATH CO.: 11 mi S., 3.5 mi W. Crater Lake (SOSC); Dice Crane Springs (SOSC); Dice Spring (see footnote 3); Jims Valley (see footnote 3); Seven Springs (see footnote 3); Onion Springs (SOSC); West Sink Creek, East Mount Thielsen (USNM); T. 33S., R. 10E., sec. 31 (see footnote 3); T. 35S., R. 8E., sec. 9 (see footnote 3); T. 36S., R. 9E., sec. 3 (see footnote 3); T. 36S., R. 9E., sec. 21 (see footnote 3); T. 36S., R. 9E., sec. 22 (see footnote 3); T. 40S., R. 5E., sec. 21 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Aspen Cabin (see footnote 3); Desert Lake (see footnote 3); Mesman Creek Pond (see footnote 3); Woodchopper Springs (see footnote 3); T. 37S., R. 21E., sec. 11 (see footnote 3). LANE CO.: Belknap Springs (OSU); H. J. Andrews Experimental Forest (PSMNH); Triangle Lake (Bailey 1936). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH). LINN CO.: 15 mi NE. Foster (Sanborn 1953). MALHEUR CO.: Cottonwood Creek, T. 26S., R. 38E., sec. 29 (PSMNH); Succor Creek State Park (PSMNH). MULTNOMAH CO.: Portland (PSMNH). TILLAMOOK CO.: Beaver (OSU); Tillamook (OSU). UMATILLA CO.: Meacham (USNM). UNION CO.: Elgin (USNM); Grande Ronde River, T. 3S., R. 36E., sec. 15 (PSMNH); La Grande (PSMNH); Starkey Experimental Forest and Range (PSMNH). WALLOWA CO.: Lick Creek Ranger Station (PSMNH); 15 mi S., 2 mi E. Lostine (OSU); 16 mi S. Lostine (OSU); 17 mi SE. Lostine (OSU); Powwatka Ridge (PSMNH); Sled Springs (USNM); 9.5 mi NNE. Wallowa (PSMNH); 11.5 mi NNE. Wallowa (PSMNH). WASCO CO.: Memaloose State Park, 2.5 mi E. Mosier (PSMNH); The Dalles (PSMNH). WASHINGTON CO.: Beaverton (USNM). WHEELER CO.: 12 mi SW. Mitchell (OSU).

Lasiurus cinereus (fig. 6) :

Lasiurus cinereus—BAKER CO.: 8 mi NE. Unity (PSMNH). CLATSOP CO.: Old Fort Clatsop (Dalquest 1943). CURRY CO.: 10 mi E. Brookings (PSMNH). GRANT CO.: Camp Creek (see footnote 4 and 5); Canyon City (PSMNH); Coxie Meadow (PSMNH); Keeney Meadow (PSMNH); T. U.S., R. 29E., sec. 35 (see footnote 5). HARNEY CO.: Pikes Creek (see footnote 3); Voltage, S. side Malheur Lake (USMNH). JACKSON CO.: Copco Reservoir (SOSC); East Pilot Spring (PSMNH, SOSC); T34S., R. 1W., sec. 23 (see footnote 3); T. 38S., R. 3W., sec. 5 (SOSC). JOSEPHINE CO.: Ft. Vannoy (SOSC); Horse Creek (SOSC); T. 35S., R. 6W., sec. 13 (see footnote 3). LAKE CO.: Woodchopper Springs (see footnote 3). LANE CO.: 0.5 mi N. Gardiner (PSMNH); Lost Creek, 10 mi E. McKenzie Bridge (USNM). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH). MALHEUR CO.: Disaster Peak (USNM); 22 mi SW. Rome (USNM); Watson (Bailey 1936). MARION CO.: Salem (USNM). MULTNOMAH CO.: Portland (PSMNH). TILLAMOOK CO.: Tillamook (OSU). UNION CO.: 5 mi SSE. La Grande (PSMNH). WALLOWA CO.: 16 mi S., 3 mi E. Lostine (OSU). WHEELER CO.: 12 mi SW. Mitchell (OSU).

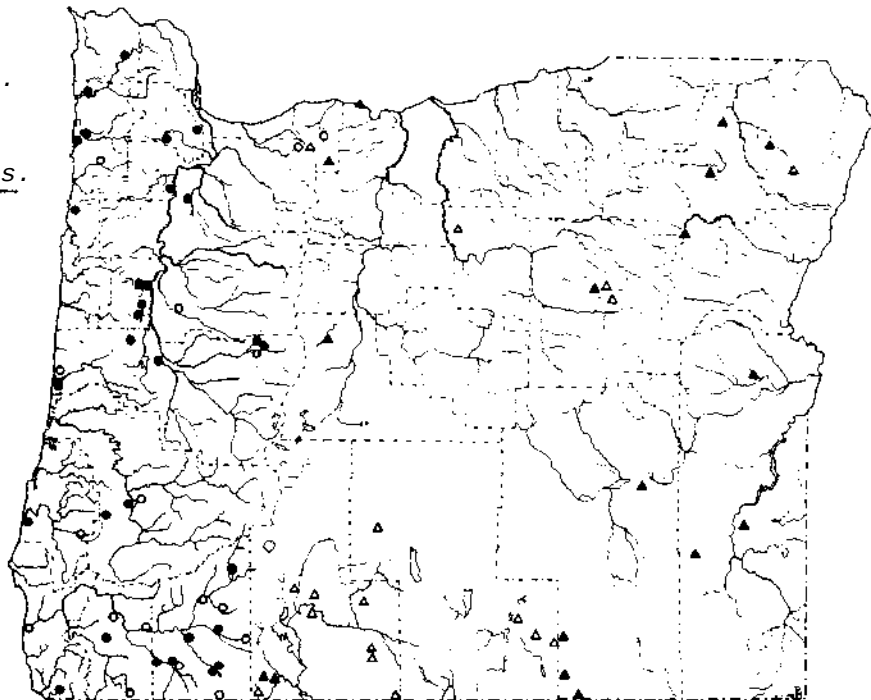
Figure 6.—Known distribution of Lasiurus cinereus in Oregon. Solid symbols = specimens; open symbols = literature records; arrow points to old townsite of Watson.



Myotis californicus (fig. 7):

Myotis californicus caurinus—BENTON CO.: 1 mi N., 1 mi E. Bellfountain (OSU); Corvallis (OSU); 7 mi N. Corvallis (PSMNH); Philomath (USNM); William L. Findley National Wildlife Refuge (PSMNH). CLACKAMAS CO.: Marmot (USNM). CLATSOP CO.: Jewell (PSMNH). COOS CO.: 1.25 mi E. Bandon (PSMNH); 1 mi S. Bandon (PSMNH); 4 mi SE. Bandon (PSMNH); Remote (Bailey 1936). CURRY CO.: 10 mi E. Brookings (PSMNH); Gold Beach (Bailey 1936). DOUGLAS CO.: Lookingglass (USNM); Reston (Bailey 1936); Roseburg (Bailey 1936). HOOD RIVER CO.: Parkdale (Bailey 1936). JACKSON CO.: 2.5 mi S. Ashland (PSMNH); Brownsboro (USNM); East Pilot Spring (PSMNH); Fish Lake (Bailey 1936); Fredenberg Butte (see footnote 3); 7 mi S., Medford (PSMNH); 5 mi SW. Medford (PSMNH); 7 mi SW. Medford (PSMNH); Prospect (Bailey 1936); 8 mi SW. Prospect (OSU); 2.5 mi NE. Ruch (PSMNH); T. 34S., R. 1W., sec. 23 (see footnote 3); T. 36S., R. 4E., sec. 32 (see footnote 3); T. 38S., R. 3W., sec. 5 (see footnote 3); T. 39S., R. 4W., sec. 4 (SOSC); T. 41S., R. 2E., sec. 3 (see footnote 3). JOSEPHINE CO.: Galice (Bailey 1936);

Figure 7.--Known distribution of Myotis californicus in Oregon. Circles = subspecies caurinus; triangles = subspecies californicus. Solid symbols = specimens; open symbols = literature records.



Grants Pass (Bailey 1936); Oregon Caves National Monument (Albright 1959, Cross (see footnote 1)); T. 37S., R. 8W., sec. 14 (SOSC). LANE CO.: Eugene (USNM); 9 mi N., 1 mi W. Gardiner (PSMNH); H. J. Andrews Experimental Forest (PSMNH); McKenzie Bridge (USNM); Mercer (Bailey 1936); T. 15S., R. 5W., sec. 30 (OSU); T. 15S., R. 7W., sec. 10 (PSMNH). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH). LINN CO.: Holly [Holley] (Bailey 1936). MARION CO.: Woodburn (PSMNH). TILLAMOOK CO.: Blaine (Bailey 1936); Nehalem (PSMNH); Netarts (OSU); Tillamook (OSU); 7 mi SE. Tillamook (OSU). WASCO CO.: Memaloose State Park, 2.5 mi E. Mosier (PSMNH). WASHINGTON CO.: Beaverton (PSMNH); 4 mi E. Gaston (OSU). YAMHILL CO.: Dayton (PSMNH).

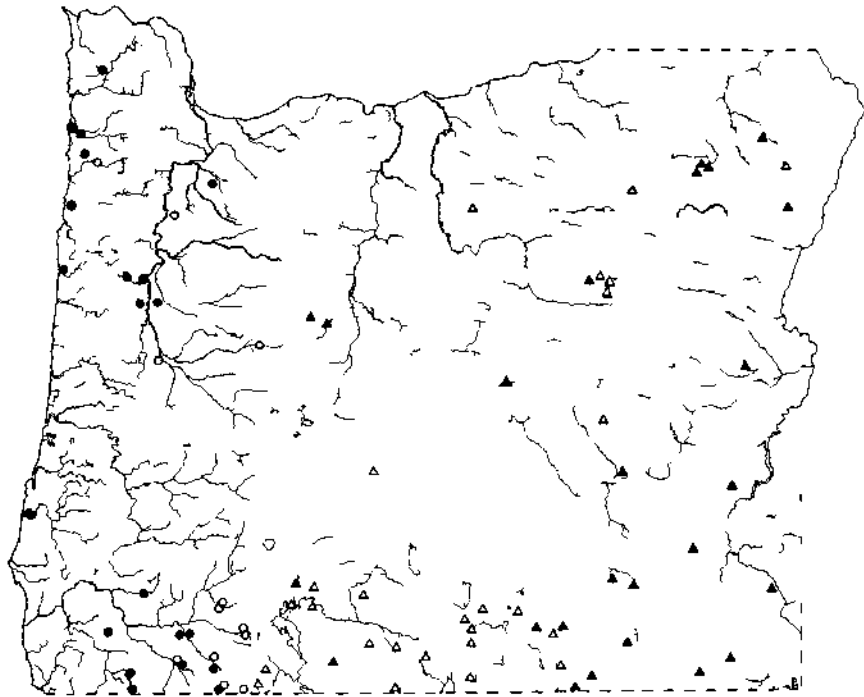
Myotis californicus californicus—BAKER CO.: Anthony (USNM). DESCHUTES CO.: Sisters (Bailey 1936); 6 mi NW. Sisters (PSMNH). GRANT CO.: Coxie Meadow (see footnote 4); Keeney Meadow (see footnote 4); T. 11S., R. 30E., sec. 32 (see footnote 5). HARNEY CO.: 3.3 mi S. Princeton (PSMNH); 4 mi N. Princeton (OSU); Potholes (SOSC); Road Springs (SOSC); Stallion Waterhole (SOSC); Willow Springs (see footnote 3). HOOD RIVER CO.: N. slope Mount Hood (USNM). KLAMATH CO.: Dice Crane Springs (see footnote 3); Dice Spring (see footnote 3); Klamath River, 2 mi S. Hayden Mountain (OSU); Onion Springs (SOSC); Seven Springs (see footnote 3); T. 33S., R. 10E., sec. 31 (see footnote 3); T. 36S., R. 9E., sec. 21 (see footnote 3); T. 39S., R. 13E., sec. 21 (see footnote 3); T. 40S., R. 5E., sec. 21 (see footnote 3); T. 41S., R. 15E., sec. 13 (see footnote 3). LAKE CO.: Desert Lake (see footnote 3); Rock Creek Cow Camp (see footnote 3); Silver Lake (Bailey 1936); Swede Knoll (SOSC). MALHEUR CO.: Bogus Lake (PSMNH); Cottonwood Creek, T. 18S., R. 42E., sec. 3 (PSMNH); Cottonwood Creek, T. 26S., R. 38E., sec. 29 (PSMNH). UNION CO.: Elgin (USNM); Starkey Experimental Forest and Range (PSMNH). WALLOWA CO.: 9.5 mi NNE. Wallowa (PSMNH); 11.5 mi NNE. Wallowa (PSMNH); Wallowa Lake (Bailey 1936). WHEELER CO.: Crown Rock, lower John Day River, near Clarno (USNM).

Myotis evotis (fig. 8):

Myotis evotis pacificus—BENTON CO.: 1.5 mi N. Corvallis (OSU); 3 mi N. Corvallis (OSU); William L. Findley National Wildlife Refuge (PSMNH); 1.5 mi NW. Wren (PSMNH). CLACKAMAS CO.: Molalla (PSMNH). CLATSOP CO.: 1 mi W. Hamlet (PSMNH). COOS CO.: 4 mi SE. Bandon (PSMNH). JACKSON CO.: East Pilot Spring (PSMNH); Fish Lake (Bailey 1936); Fredenberg Butte (see footnote 3); Grub Gulch (see footnote 3); 3.5 mi S. Jacksonville (PSMNH); 7 mi S. Medford (PSMNH); 7 mi SW. Medford (PSMNH); T. 35S., R. 2E., sec. 35 (see footnote 3); T. 36S., R. 4E., sec. 32 (see footnote 3); T. 38S., R. 3W., sec. 5 (see footnote 3); T. 38S., R. 1E., sec. 16 (see footnote 3); T. 40S., R. 2E., sec. 25 (see footnote 3); T. 40S., R. 4E., sec. 30 (see footnote 3); T. 41S., R. 2E., sec. 3 (see footnote 3). JOSEPHINE CO.: Jumpoff Joe Creek (PSMNH, SOS); Oregon Caves National Monument (OSU); T. 37S., R. 8W., sec. 14 (see footnote 3); T. 40S., R. 6W., sec. 6 (see footnote 3). LAKE CO.: Fremont, about 6 mi W. Fort Rock (Bailey 1936). LANE CO.: Eugene (Bailey 1936); McKenzie Bridge (Bailey 1936); O'Leary Peak, 10 mi S. McKenzie Bridge (Bailey 1936). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH); Yaquina Bay (OSU). LINN CO.: 1.7 mi NE. Peoria (PSMNH); 3.5 mi NW. Shedd (PSMNH). MARION CO.: Salem (Bailey 1936). TILLAMOOK CO.: Blaine (Bailey 1936); Cape Mears (OSU); Pleasant Valley (OSU); Tillamook (OSU, PSMNH).

Figure 8.--Known distribution of Myotis evotis in Oregon.

Circles = subspecies pacificus; triangles = subspecies evotis.
Solid symbols = specimens; open symbols = literature records.

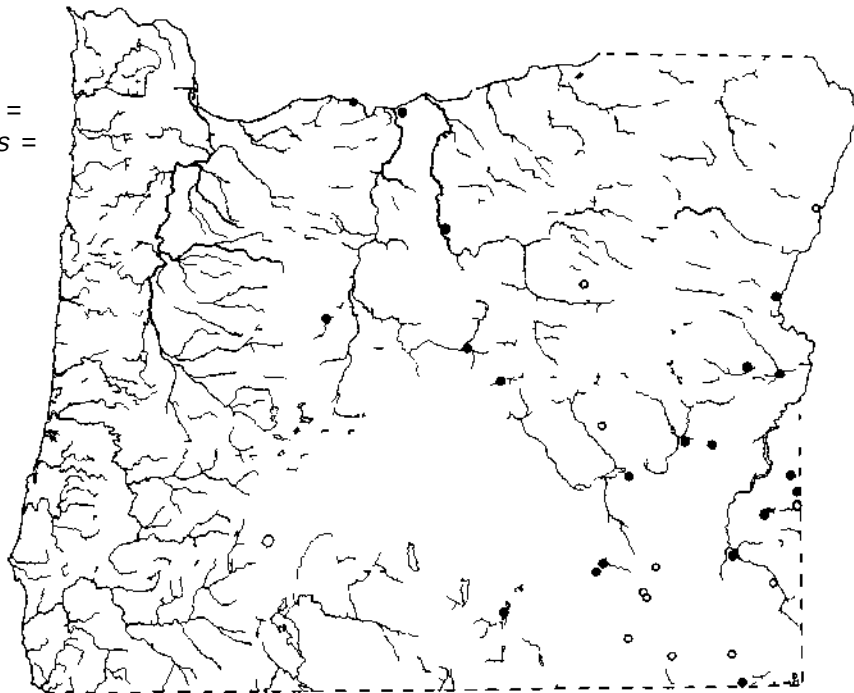


Myotis evotis evotis—BAKER CO.: Cornucopia (USNM). CROOK CO.: Twelve Mile [Twelvemile] Creek (USNM). DESCHUTES CO.: Indian Ford Campground (OSU); Sisters (USNM). GRANT CO.: Camp Creek (see footnote 4 and 5); Coxie Meadow (see footnote 4); Keeney Meadow (see footnote 4); T. 11S., R. 30E., sec. 32 (PSMNH). HARNEY CO.: 1 mi SE. Blitzen Crossing Campground, Steens Mountain (PSMNH); Burns (Bailey 1936); Grey Springs Reservoir (see footnote 3); Harney (USNM); Long Hollow Springs (see footnote 3); Potholes (see footnote 3); Road Springs (see footnote 3); Stallion Waterhole (see footnote 3); Steens Mountain, T. 32S., R. 32-3/4E., sec. 28 (OSU); Willow Springs (see footnote 3); T. 39S., R. 34E., sec. 9 (see footnote 3). KLAMATH CO.: Dice Crane Springs (see footnote 3); Dice Springs (see footnote 3); Jims Valley (see footnote 3); Onion Springs (see footnote 3); Royston Spring, 6 mi S., 8 mi W. Bly (PSMNH); Seven Springs (see footnote 3); T. 33S., R. 10E., sec. 31 (see footnote 3); T. 35S., R. 8E., sec. 9 (see footnote 3); T. 36S., R. 9E., sec. 21 (see footnote 3); T. 36S., R. 9E., sec. 22 (see footnote 3); T. 40S., R. 5E., sec. 21 (see footnote 3); T. 41S., R. 15E., sec. 13 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Aspen Cabin (see footnote 3); Cooper's Gulch (see footnote 3); Desert Lake (see footnote 3); Mesman Creek Pond (see footnote 3); Rock Creek Cow Camp (see footnote 3); Swede Knoll (see footnote 3); Woodchopper Springs (see footnote 3); T. 37S., R. 21E., sec. 11 (see footnote 3). MALHEUR CO.: Cedar Mountain (USNM); Cottonwood Creek, T. 18S., R. 42E., sec. 3 (PSMNH); Cottonwood Creek, T. 26S., R. 38E., sec. 29 (PSMNH); Disaster Peak (USNM); Horse Camp Canyon (see footnote 3); T. 39S., R. 43E., sec. 13 (see footnote 3). UMATILLA CO.: Lehman Spring (Bailey 1936). UNION CO.: La Grande (PSMNH). WALLOWA CO.: Powwatka Ridge (PSMNH); 9.5 mi NNE. Wallowa (PSMNH); 11.5 mi NNE. Wallowa (PSMNH); Wallowa Lake (Bailey 1936). WHEELER CO.: Fossil (Bailey 1936).

Myotis leibi (fig. 9):

Myotis leibi melanorhmus—BAKER CO.: Homestead (USNM). CROOK CO.: Paulina Cave (OSU); Twelve Mile [Twelvemile] Creek (USNM). DESCHUTES CO.: Sisters (USNM). GRANT CO.: T. 1S., R. 29E., sec. 35 (see footnotes 4 and 5). HARNEY CO.: Big Sand Gap Springs (see footnote 3); Burns (Bailey 1936); Frenchglen (PSMNH); Grey Springs Reservoir (see footnote 3); Mickey Springs (see footnote 3); Pikes Creek (see footnote 3); 3.3 mi S. Princeton (PSMNH); Steens Mountain, T. 31S., R. 32-1/2E., sec. 33 (OSU); T. 35S., R. 35E., sec. 29 (see footnote 3); T. 37S., R. 32-3/4E., sec. 36 (see footnote 3); T. 39S., R. 34E., sec. 9 (see footnote 3). LAKE CO.: Warner Valley, SW. base Mount Warner (USNM). MALHEUR CO.: Batch Lake (PSMNH); Cottonwood Creek, T. 18S., R. 42E., sec. 3 (PSMNH); Horse Camp Canyon (see footnote 3); 8 mi NE. McDermitt (USNM); 2 mi NW. Riverside (USNM); Rockville (USNM); Rome (USNM); Sheaville (USNM); Skull Spring (USNM); Vale (PSMNH); T. 39S., R. 43E., sec. 13 (see footnote 3). SHERMAN CO.: Millers [Miller] (USNM). WASCO CO.: Memaloose State Park, 2.5 mi E. Mosier (PSMNH). WHEELER CO.: Crown Rock [near present site of Clarno] (USNM).

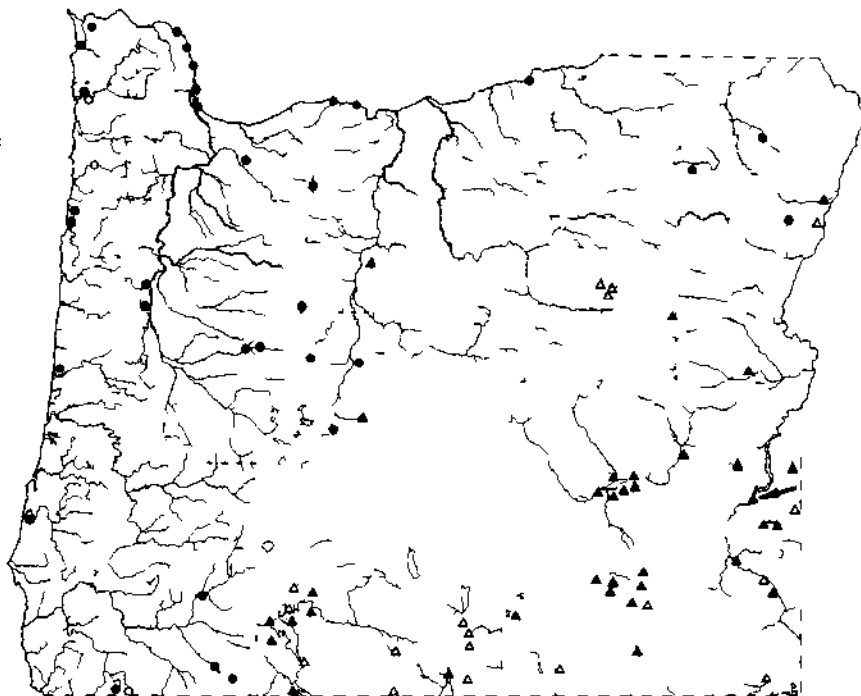
Figure 9.—Known distribution of Myotis leibi melanorhinus in Oregon. Solid symbols = specimens; open symbols = literature records.



Myotis lucifugus (fig. 10):

Myotis lucifugus alascensis—BAKER CO.: Cornucopia (USNM). BENTON CO.: Corvallis (OSU); 3.5 mi N. Corvallis (OSU); 7 mi N. Corvallis (PSMNH); 8 mi NNE. Corvallis (PSMNH); William L. Findley National Wildlife Refuge (PSMNH). CLACKAMAS CO.: Estacada (PSMNH). CLATSOP CO.: Gearhart (OSU); Olney (PSMNH). COLUMBIA CO.: 0.8 mi W. Globe (PSMNH); 2.5 mi W. Rainier (PSMNH); Sauvies Island (OSU, PSMNH). COOS CO.: 1.75 mi E. Bandon (PSMNH). DESCHUTES CO.: Bend (USNM); La Pine (USNM); Sparks Lake (OSU). HOOD RIVER CO.: 6.5 mi W. Hood River (PSMNH). JACKSON CO.: Ashland (PSMNH); Shoat Springs (PSMNH); T. 34S., R. 1W., sec. 23 (SOSC). JEFFERSON CO.: Suttle Lake (OSU). JOSEPHINE CO.: Bolan Lake (PSMNH); Oregon Caves National Monument (see footnote 1). LANE CO.: Blue River (USNM); Mercer Lake (PSMNH); McKenzie Bridge (USNM). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH); DeLake (PSMNH); Lincoln City (PSMNH). MORROW CO.: 1.8 mi E. Boardman (PSMNH). MULTNOMAH CO.: Portland (PSMNH). TILLAMOOK CO.: Blaine (Bailey 1936); Mohler (Bailey 1936); Nehalem (OSU). UNION CO.: La Grande (PSMNH). WALLOWA CO.: Lick Creek Ranger Station (PSMNH); 10 mi S., 1 mi E. Lostine (OSU); 21 mi S., 5 mi E. Lostine (OSU). WASCO CO.: Clear Lake (PSMNH); Memaloose State Park, 2.5 mi E. Mosier (PSMNH).

Figure 10.—Known distribution of Myotis lucifugus in Oregon. Circles = subspecies alascensis; triangles = subspecies carissima. Solid symbols = specimens, open symbols = literature records; arrow points to old townsite of Watson.



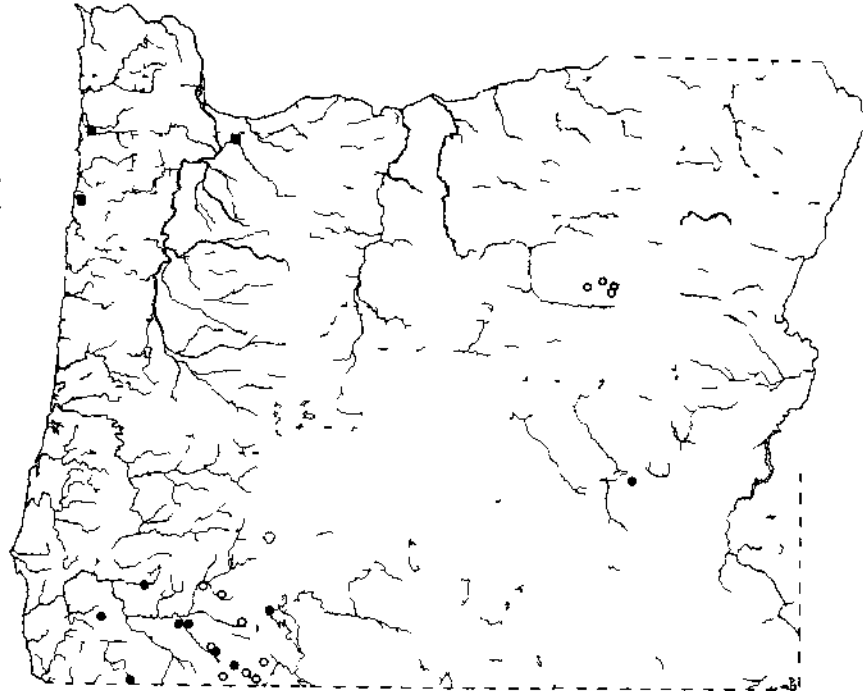
Myotis lucifugus carissima—BAKER CO.: East Pine Creek (Bailey 1936); 8 mi NE. Unity (PSMNH). DESCHUTES CO.: Paulina Lake (USNM). GRANT CO.: Camp Creek (see footnote 4); Coxie Meadow (see footnote 4); Keeney Meadow (see footnote 4). HARNEY CO.: Big Sand Gap Springs (see footnote 3); 1 mi SE. Blitzen Crossing Campground, Steens Mountain (PSMNH); Fish Lake, Steens Mountain (PSMNH); Kiger Gorge, Steens Mountain (USNM); Malheur National Wildlife Refuge (OSU, PSMNH, USNM); Narrows (USNM); Potholes (see footnote 3); 3.3 mi S. Princeton (PSMNH); 4 mi N. Princeton (OSU); Steens Mountain, T. 31S., R. 32-1/2E., sec. 3 (OSU); Steens Mountain, T. 32S., R. 33E., sec. 32 (OSU); Steens Mountain, T. 33S., R. 32-3/4E., sec. 26 (OSU); Steens Mountain, T. 33S., R. 33E., sec. 5 (OSU); Trout Creek (USNM); Voltage (USNM). JEFFERSON CO.: 16.5 mi S., 3 mi W. Madras (OSU). KLAMATH CO.: Dice Crane Springs (see footnote 3); Jims Valley (see footnote 3); Klamath Falls (Bailey 1936); Lake of the Woods (OSU); 4 mi N. Modoc Point (OSU); upper Klamath Lake, Rocky Point (OSU, PSMNH); Worden (OSU); T. 33S., R. 10E., sec. 31 (SOSC); T. 35S., R. 8E., sec. 9 (see footnote 3); T. 36S., R. 9E., sec. 3 (SOSC); T. 36S., R. 9E., sec. 21 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Aspen Cabin (see footnote 3); 10 mi SE. Lakeview (USNM); Swede Knoll (see footnote 3); Woodchopper Springs (see footnote 3); T. 37S., R. 21E., sec. 11 (see footnote 3); T. 40S., R. 21E., sec. 11 (see footnote 3). MALHEUR CO.: Anderson Crossing (see footnote 3); Batch Lake (PSMNH); Cottonwood Creek, T. 18S., R. 42E., sec. 3 (PSMNH); Dry Creek, T. 24S., R. 41E., sec. 4 (PSMNH); Horse Camp Canyon (SOSC); 10 mi WNW. Jordan Valley (PSMNH); Riverside (USNM); 3.5 mi SE. Rome (PSMNH); Sheaville (USNM); Succor Creek State Park (PSMNH); Watson (USNM); T. 33S., R. 44E., sec. 9 (see footnote 3).

Myotis thysanodes (fig. 11):

Myotis thysanodes subspecies—CLACKAMAS CO.: Carver (USNM).
LINCOLN CO.: Cascade Head Experimental Forest (PSMNH).
TILLAMOOK CO.: Tillamook (PSMNH).

Myotis thysanodes thysanodes—GRANT CO.: Camp Creek (see footnote 4); Coxie Meadow (see footnote 4); Keeney Meadow (see footnote 4); T. 11S., R. 29E., sec. 35 (see footnotes 4 and 5).
HARNEY CO.: 3.3 mi S. Princeton (SOSC). JACKSON CO.: Ashland (SOSC); 2.5 mi S. Ashland (PSMNH); 3 mi S. Ashland (SOSC); East Pilot Spring (PSMNH); Fredenberg Butte (see footnote 3); 3.5 mi S. Jacksonville (PSMNH); Jenny Springs (see footnote 3); 7 mi S. Medford (PSMNH); Shoat Springs (SOSC); T. 34S., R. 1W., sec. 23 (see footnote 3); T. 36S., R. 4F., sec. 32 (see footnote 3); T. 38S., R. 1E., sec. 16 (see footnote 3); T. 39S., R. 4W., sec. 4 (see footnote 3). JOSEPHINE CO.: Horse Creek (SOSC); Jumpoff Joe Creek (SOSC); Oregon Caves National Monument (OSU). KLAMATH CO.: Onion Springs (see footnote 3); upper Klamath Lake, Rocky Point (OSU); T. 40S., R. 5E., sec. 21 (see footnote 3).

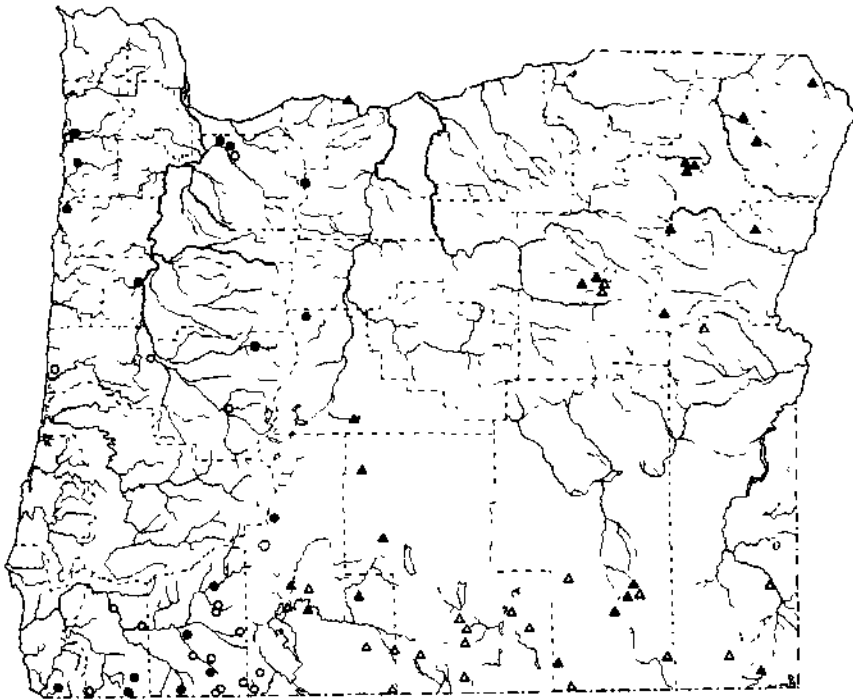
Figure 11.—Known distribution of Myotis thysanodes in Oregon. Squares = undescribed subspecies; circles = subspecies thysanodes. Solid symbols = specimens; open symbols = literature records.



Myotis volans (fig. 12):

Myotis volans longicrus—BENTON CO.: Corvallis (PSMNH). CLACKAMAS CO.: Carver, Grants Cave (PSMNH); Eagle Creek (PSMNH); Estacada (Bailey 1936). CURRY CO.: 10 mi E. Brookings (PSMNH). DESCHUTES CO.: Indian Ford Campground (PSMNH). JACKSON CO.: Chappel Spring (SOSC); East Pilot Spring (PSMNH); Fredenberg Butte (see footnote 3); Jenny Springs (see footnote 3); 7 mi S. Medford (PSMNH); 9 mi NE. Trail (PSMNH); T. 35S., R. 2E., sec. 35 (see footnote 3); T. 36S., R. 4E., sec. 32 (see footnote 3); T. 38S., R. 2W., sec. 11 (see footnote 3); T. 38S., R. 1E., sec. 16 (see footnote 3); T. 40S., R. 2E., sec. 25 (see footnote 3). JOSEPHINE CO.: Galice (Bailey 1936); Grants Pass (Bailey 1936); Little Sugarloaf (SOSC); Oregon Caves National Monument (USNM); Waldo Hill (see footnote 3). KLAMATH CO.: Onion Springs (see footnote 3); Upper Sink Creek, E. base Mt. Thielsen (USNM); T. 40S., R. 5E., sec. 21 (see footnote 3). LANE CO.: Eugene (Bailey 1936); McKenzie Bridge (USNM); Mercer (Bailey 1936); Oakridge (Bailey 1936). LINCOLN CO.: Cascade Head Experimental Forest (PSMNH). TILLAMOOK CO.: Beaver (OSU); Netarts (Bailey 1936); Tillamook (OSU). WASCO CO.: Clear Lake (PSMNH).

Figure 12.—Known distribution of Myotis volans in Oregon. Circles = subspecies longicrus; triangles = subspecies interior. Solid symbols = specimens; open symbols = literature records.

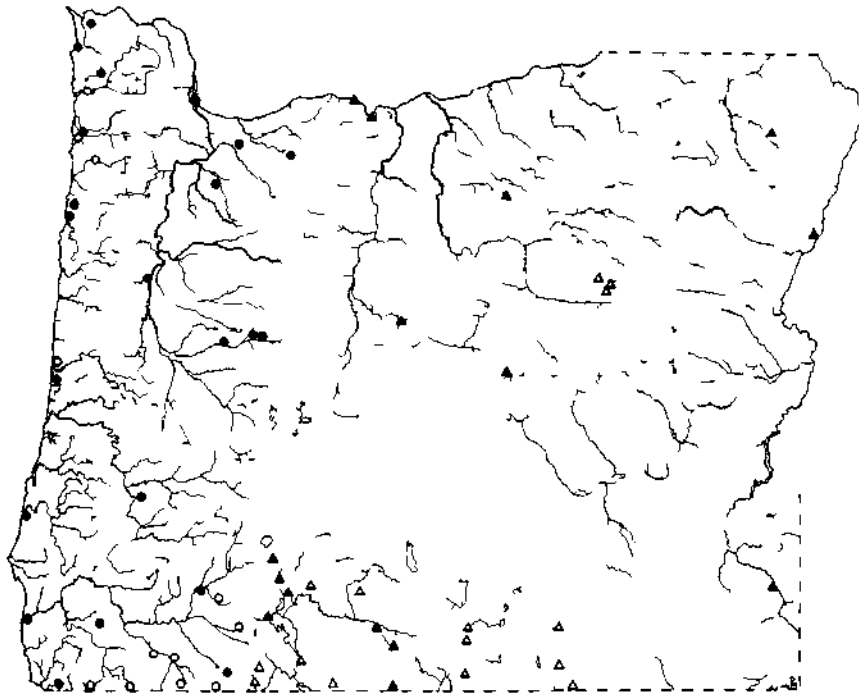


Myotis volans interior—BAKER CO.: Anthony (USMM); Sparta (USNM); 8 mi NE. Unity (PSMNH). DESCHUTES CO.: Paulina Lake (USNM). GRANT CO.: Camp Creek (see footnotes 4 and 5); Coxie Meadow (see footnote 4); Keeney Meadow (PSMNH); T. 11S., R. 30E., sec. 32 (PSMNH); T. 11S., R. 29E., sec. 35 (PSMNH). HARNEY CO.: Grey Springs Reservoir (see footnote 3); Pikes Creek (see footnote 3); Potholes (SOSC); Sageview (Bailey 1936); Stallion Waterhole (see footnote 3); Steens Mountain, T. 33S., R. 32-3/4E., sec. 26 (OSU); Steens Mountain, T. 33S., R. 33E., sec. 5 (OSU); Steens Mountain, T. 33S., R. 33E., sec. 10 (OSU). KLAMATH CO.: Dice Crane Springs (SOSC); Dice Springs (SOSC); Jims Valley (see footnote 3); Sevens Springs (see footnote 3); T. 33S., R. 10E., sec. 31 (see footnote 3); T. 35S., R. 8E., sec. 9 (see footnote 3); T. 36S., R. 9E., sec. 3 (see footnote 3); T. 36S., R. 9E., sec. 21 (SOSC); T. 36S., R. 9E., sec. 22 (see footnote 3); T. 41S., R. 15E., sec. 13 (see footnote 3); T. 41S., R. 15E., sec. 23 (see footnote 3). LAKE CO.: Aspen Cabin (see footnote 3); Desert Lake (see footnote 3); Fremont, about 6 mi W. Fort Rock (USNM); Mesman Creek Pond (see footnote 3); Silver Lake (USNM); Swede Knoll (see footnote 3); Woodchopper Springs (see footnote 3); T. 37S., R. 21E., sec. 11 (see footnote 3); T. 40S., R. 21E., sec. 11 (see footnote 3). MALHEUR CO.: Anderson Crossing (SOSC); Horse Camp Canyon (see footnote 3); Ironside (Bailey 1936); T. 39S., R. 43E., sec. 13 (see footnote 3). UNION CO.: La Grande (PSMNH); Starkey Experimental Forest and Range (PSMNH). WALLOWA CO.: Kirkland Lookout, T. 4N., R. 45E., sec. 13 (PSMNH); 10 mi S., 1 mi E. Lostine (OSU); Powwatka Ridge (PSMNH); 9.5 mi NNE. Wallowa (PSMNH); 11.5 mi NNE. Wallowa (PSMNH). WASCO CO.: Memaloose State Park, 2.5 mi E. Mosier (PSMNH).

Myotis yumanensis (fig. 13):

Myotis yumanensis saturatus—BENTON CO.: 3 mi S., 2 mi W. Corvallis (OSU); 8 mi NNE. Corvallis (PSMNH); Kiger Island (OSU). CLACKAMAS CO.: Eagle Creek (PSMNH); Mollala (PSMNH); Rhododendron (PSMNH). CLATSOP CO.: Gearhart (OSU); Hamlet (OSU); Olney (PSMNH). COOS CO.: 1.75 mi E. Bandon (PSMNH). CURRY CO.: 10 mi E. Brookings (PSMNH); Wedderburn (USNM); T. 36S., R. 14W., sec. 17-1/4 (see footnote 3). DOUGLAS CO.: Roseburg (USNM). JACKSON CO.: Chappel Spring (see footnote 3); East Pilot Spring (see footnote 3); Fredenberg Butte (see footnote 3); Shoat Springs (PSMNH); T. 34S., R. 1W., sec. 23 (SOSC); T. 36S., R. 4E., sec. 32 (see footnote 3); T. 38S., R. 3W., sec. 5 (see footnote 3); T. 39S., R. 4W., sec. 4 (see footnote 3); T. 40S., R. 4E., sec. 10 (PSMNH). JOSEPHINE CO.: Horse Creek (SOSC); Oregon Caves National Monument (see footnote 1); Waldo Hill (see footnote 3). LANE CO.: 9 mi N., 1 mi W. Gardiner (PSMNH); H. J. Andrews Experimental Forest (PSMNH); McKenzie Bridge (USNM); Mercer (Bailey 1936); Vida (USNM). LINCOLN CO.: DeLake (PSMNH); Cascade Head Experimental Forest (PSMNH). MULTNOMAH CO.: Portland (PSMNH). TILLAMOOK CO.: Blaine (Bailey 1936); Mohler (Bailey 1936); Netarts (Bailey 1936); Tillamook (OSU).

Figure 13.—Known distribution of Myotis yumanensis in Oregon. Circles = subspecies saturatus; triangles = subspecies sociabilis. Solid symbols = specimens; open symbols = literature records.

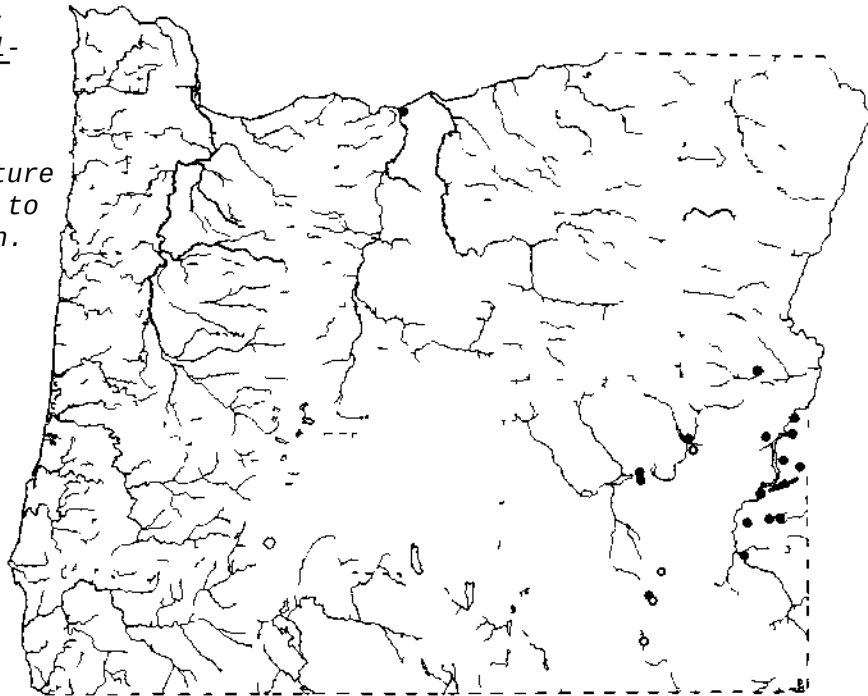


Myotis yumanensis sociabilis—BAKER CO.: Homestead (USNM).
 CROOK CO.: 20 mi SE. Prineville (USNM); Twelve Mile
 [Twelvemile] Creek (USNM). GILLIAM CO.: Lonerock (USNM).
 GRANT CO.: Camp Creek (see footnotes 4 and 5); Coxie Meadow
 (see footnote 4); Keeney Meadow (see footnote 4). HARNEY CO.:
 Potholes (see footnote 3); Road Springs (see footnote 3);
 Stallion Waterhole (see footnote 3). KLAMATH CO.: Bly
 (PSMNH), Dice Spring (see footnote 3); Fort Klamath (USNM);
 4 mi SE. Fort Klamath (PSMNH); Jims Valley (SOSC); Klamath
 Agency (OSU); Klamath Falls (Bailey 1936); upper Klamath Lake,
 Rocky Point (OSU, PSMNH); Molin [Malin] (Bailey 1936); Onion
 Springs (see footnote 3); T. 33S., R. 10E., sec. 31 (see
 footnote 3); T. 40S., R. 5E., sec. 21 (see footnote 3);
 T. 41S., R. 15E., sec. 23 (SOSC). LAKE CO.: Aspen Cabin
 (see footnote 3); T. 37S., R. 21E., sec. 11 (see footnote 3);
 T. 40S., R. 21E., sec. 11 (see footnote 3). MALHEUR CO.:
 Horse Camp Canyon (SOSC). WALLOWA CO.: 10 mi S., 1 mi E.
 Lostine (OSU). WASCO CO.: Memaloose State Park, 2.5 mi E.
 Mosier (PSMNH); The Dalles (PSMNH).

Pipistrellus hesperus (fig. 14):

Pipistrellus hesperus hesperus—HARNEY CO.: Alvord Valley, Trout Creek Canyon (Hatfield 1936); Big Sand Gap Springs (SOSC); Mickey Springs (see footnote 3); Pikes Creek (see footnote 3); Princeton (Bailey 1936); 3.3 mi S. Princeton (PSMNH); 4 mi N. Princeton (OSU); T. 35S., R. 35E., sec. 29 (see footnote 3). MALHEUR CO.: Batch Lake (PSMNH); Cottonwood Creek, T. 18S., R. 42E., sec. 3 (PSMNH); Cow Creek Lake (USNM); Leslie Gulch, 35 mi SSW. Nyssa (OSU); Owyhee Canyon, T. 22S., R. 45E., sec. 3 (PSMNH); Riverside (USNM); 3.5 mi SE. Rome (PSMNH); Succor Creek State Park (PSMNH); Twin Springs (PSMNH); Watson (USNM). SHERMAN CO.: Millers [Miller] (USNM).

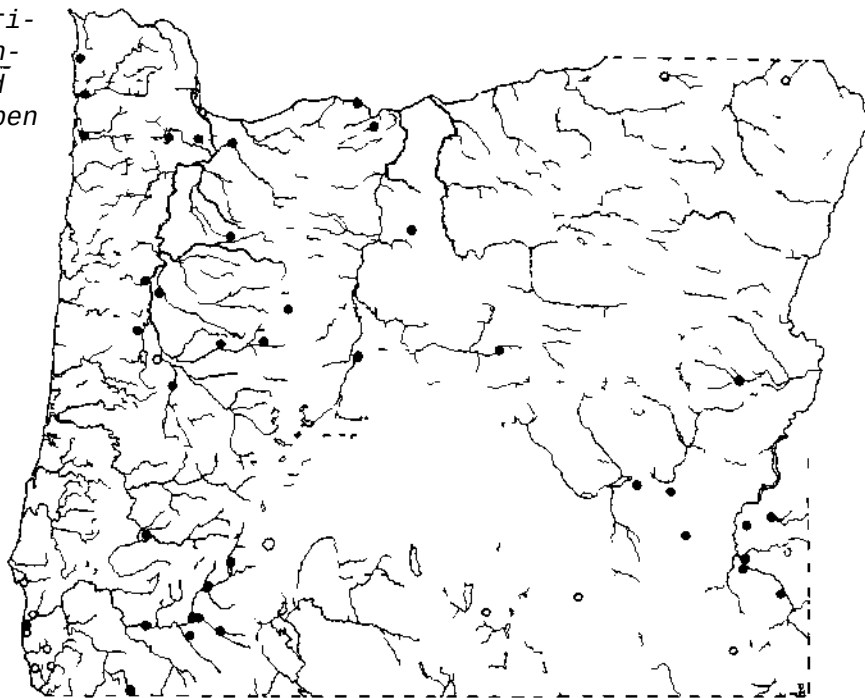
Figure 14.—Known distribution of Pipistrellus hesperus hesperus in Oregon. Solid symbols = specimens; open symbols = literature records; arrow points to old townsite of Watson.



Plecotus townsendi (fig. 15):

Plecotus townsendi townsendi—BENTON CO.: Corvallis (OSU); 3 mi N. Corvallis (OSU); Kiger Island (OSU). CLACKAMAS CO.: Carver, Grants Cave (PSMNH, USNM). CLATSOP CO.: Cannon Beach (OSU). CROOK CO.: Paulina Cave (OSU). CURRY CO.: Gold Beach (USNM); Upper Rogue River Valley (Bailey 1936); T. 34S., R. 14W., sec. 7 (see footnote 3); T. 37S., R. 14W., sec. 18 (see footnote 3); T. 37S., R. 14W., sec. 21 (see footnote 3); T. 38S., R. 13W., sec. 36 (see footnote 3); T. 39S., R. 12W., sec. 8 (see footnote 3); T. 39S., R. 14W., sec. 28 (see footnote 3). DESCHUTES CO.: 6 mi SE. Bend (PSMNH); 5 mi SE.

Figure 15.—Known distribution of *Plecotus townsendi* in Oregon. Solid symbols = specimens; open symbols = literature records.



Deschutes, near Bend (OSU). DOUGLAS CO.: 10 mi E. Roseburg (OSU). HARNEY CO.: Malheur Cave (USNM); 3.3 mi S. Princeton (PSMNH); Roaring Springs Cave, 80 mi S. Burns (Cressman and Reed 1938). JACKSON CO.: 2 mi W. Gold Ray Dam (PSMNH); 11 mi SE. Lake Creek (PSMNH); Little Butte Creek (PSMNH); 7 mi SW. Medford (PSMNH); Prospect (OSU); T. 34S., R. 1E., sec. 5 (SOSC). JOSEPHINE CO.: Baldy Mt. Cave (see footnote 3); Oregon Caves National Monument (OSU, USNM); T. 37S., R. 5W., sec. 22 (SOSC). LAKE CO.: T. 35S., R. 23E., sec. 15 (see footnote 3). LANE CO.: Creswell (USNM); Eugene (Bailey 1936); 11 mi W. Junction City (PSMNH); McKenzie Bridge (USNM); Vlda (USNM). LINN CO.: 1.5 mi N. Big Lake (PSMNH); 3 mi SW. Shedd (OSU). MALHEUR CO.: Bogus Lake (PSMNH); 15 mi SW. Cord (USNM); Cascade Reservoir (see footnote 3); Horse Camp Canyon (SOSC); Jordan Crater (PSMNH); 3.5 mi SE. Rome (PSMNH); Westfall (PSMNH); T. 32S., R. 42E., sec. 17 (SOSC). MARION CO.: Silver Creek Cave (PSMNH). MULTNOMAH CO.: Portland (Bailey 1936). TILLAMOOK CO.: Nehalem (OSU); Tillamook (PSMNH). UMATILLA CO.: Milton-Freewater (Booth 1945). WALLOWA CO.: Paradise, Grande Ronde Canyon (Bailey 1936). WASCO CO.: 6 mi E. Antelope (OSU); Memaloose State Park, 2.5 mi E. Mosier (PSMNH); 8 mi S., 8 mi W. The Dalles (OSU). WASHINGTON CO.: 4 mi SE. Gaston (OSU); Tigard (PSMNH).

Tadarida brasiliensis (fig. 16):

Tadarida brasiliensis mexicana—JACKSON CO.: Ashland (PSMNH, SOSC); Medford (PSMNH, SOSC); T. 36S., R. 1W., sec. 20 (see footnote 3); T. 39S., R. 4W., sec. 4 (SOSC). KLAMATH CO.: Kingsley Air Force Base, Klamath Falls (Constantme 1961).

Figure 16.—Known distribution of Tadarida brasiliensis mexicana in Oregon. Solid symbols = specimens; open symbols = literature records.



Discussion

Franklin and Dyrness (1973) have outlined and discussed the physiographic provinces of Oregon (fig. 17). Of the 10 physiographic provinces, the High Cascades (5 in fig. 17) has the greatest influence on subspeciation of bats.

Figure 17.—Physiographic provinces of Oregon (after Franklin and Dyrness 1973).

1. Coast Ranges
2. Klamath Mountains
3. Willamette Valley
4. Western Cascades
5. High Cascades
6. Blue Mountains
7. Columbia Basin
8. High Lava Plains
9. Basin and Range
10. Owyhee Upland



The influence of the High Cascades (1 500- to 1 800-meter elevation) can be seen in the coloration of the five species (Antrozous pallidus, Myotis californicus, M. evotis, M. volans, and M. yumanensis) that exhibit a dark subspecies west of the crest of the High Cascades and a light subspecies on the east side (figs. 2, 1, 8, 12, and 13).

A number of factors may exert influence on subspeciation, but the following is the most logical: the forests along the Cascade crest seem to be marginal habitat for bats (except in the southern portion of the State) and may act to restrict west-east gene flow. In addition, the cold winters (usually with a deep snow pack that lasts until June or July) would make rearing young difficult. Although there are small, scattered subalpine and timberline areas, most of the High Cascades is forested and includes the following tree species: Pacific silver fir (Abies amabilis), noble fir (A. procera), mountain hemlock (Tsuga mertensiana), western white pine (Pinus monticola), and lodgepole pine (P. contorta) (Franklin and Dyrness 1973).

Bats may be seen along the crest of the Cascades during the summer; but they do not appear to be nearly so abundant as in the dense, lower-elevation Douglas-fir (Pseudotsuga menziesii)-western hemlock (Tsuga heterophylla) forests of the western slopes of the Cascade Range or as in the open ponderosa pine (Pinus ponderosa) forests of the eastern slopes.

Myotis lucifugus has a similar distributional pattern, with the exception of northern Oregon where the dark subspecies, alascensis, occurs eastward, along the Columbia River, into the northeastern portion of the Blue Mountains province (fig. 10). Myotis thysanodes occurs in southwestern Oregon and is known from a few localities in eastern Oregon (fig. 11). In addition, however, a small, dark, undescribed subspecies, with a reduced fringe, occurs in southwestern Washington (Barbour and Davis 1969) and northwestern Oregon (fig. 11).

The remaining eight species are represented by a single subspecies each; they include: Eptesicus fuscus, Euderma maculatum, Lasionycteris noctivagans, Lasiurus cinereus, Myotis leibi, Pipistrellus hesperus, Plecotus townsendi, and Tadarida brasiliensis. Of these, Eptesicus fuscus, Lasionycteris noctivagans, Lasiurus cinereus, and Plecotus townsendi are generally distributed throughout Oregon (figs. 3, 5, 6, and 15). Euderma maculatum is represented by a single specimen from the Basin and Range province. Myotis leibi and Pipistrellus hesperus are rangeland species, and therefore occur primarily in the Owyhee Upland, Basin and Range, High Lava Plains, and Columbia Basin provinces (figs. 9 and 14). Finally, Tadarida brasiliensis reaches the northern limit of its distribution in southwestern Oregon (fig. 16).

As often is the case, problems arose in checking the accuracy of historical records. For example: (1) The old town of Watson, referred to in Bailey (1936), no longer exists. It was inundated by the Owyhee Reservoir in 1935. (2) Myotis yumanensis saturatus listed from "Hope" by Bailey (1936) was either M. yumanensis sociabilis from Hope, just west of Vale, Malheur Co. (McArthur 1965), or it was in fact M. yumanensis saturatus from a place called "Hope" in western Oregon that we could not find. (3) Bailey (1936) listed Myotis f. californicus from Blue River, Lane Co. In reality, this specimen was probably M. californicus caurinus, the dark, western subspecies, because Blue River is well west of the High Cascades. (4) Bailey (1936) also listed Myotis volans longicrus from "Baker County." Myotis volans longicrus is the dark subspecies west of the High Cascades, and Baker Co. borders Idaho, east of the Cascade Range. The subspecies would therefore have to be interior. (5) Bailey (1936) cited Plecotus townsendi from "Carol" in Malheur County, but it should have been "Cord." And (6) a specimen of Myotis leibi from the USNM was simply cited as having been obtained at "Crown Rock on the John Day River, Oregon." "Crown Rock was a post office not far from the present site of Clarno" (McArthur 1965).

Conclusions

Although our study was not exhaustive, it gives the best picture of bat distribution in Oregon to date, and suggests aspects of chiropteran distributional patterns within the State. A thorough, quantitative study could refine these patterns with respect to geography, habitat, and subspeciation.

Acknowledgments

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