

BIRDS OF THE PLOTT BALSAM MOUNTAINS OF NORTH CAROLINA

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The lofty Plott Balsam Mountains of western North Carolina are one of the most rugged, wild, and scenic mountain ranges in the southern Appalachians. Although largely unexplored ornithologically until recent years, the range is covered by a wide variety of plant communities inhabited by a rich and diversified avifauna. This paper provides an annotated checklist of bird species and brief ecological and vegetational data as a baseline for future studies in the region.

GEOMORPHOLOGY

Transecting the Great Balsam Mountains at right angles, the Plott Balsams rise abruptly from the valleys of the Tuckasegee and Pigeon Rivers of western Jackson and Haywood Counties, N.C., at 35° 28' N and 83° 8' W (Waterrock Knob, Fig. 1). Beginning approximately 9 km E of the confluence of the Tuckasegee and Oconaluftee Rivers, the range extends in an ENE direction for 28 km to its terminus just NW of Waynesville. For almost half its length, the main crest lies above 1500 m*, with major peaks including Bald Mountain (1646 m), Blackrock Mountain (1771 m), Yellow Face (1839 m), Waterrock Knob (1918 m), Lickstone (1700 m), Jones Knob (1902 m), Old Field Top (1768 m), Plott Balsam (1956 m), and Eaglenest Mountain (1506 m). Scott Creek, Richland Creek, the Tuckasegee River, and Balsam Gap form the southern boundary, while Soco Gap, Soco Creek, and Jonathan's Creek separate the range from the northern Great Balsams. The Blue Ridge Parkway crosses the main crest from Balsam Gap (1024 m), to Waterrock Knob and on to Soco Gap (1324 m), providing the only convenient access to the higher elevations. The coves and valleys below 1000 m are extensively settled and accessible by a network of major and secondary highways.

CLIMATE

Although no climate data are available for the higher elevations, conditions probably resemble those at Mt. Mitchell (see Simpson 1972) with cool temperatures, moderate to heavy rainfall, and frequent fog during the summer, while freezing temperatures, heavy snowfall and ice, and high winds prevail during the winter.

VEGETATION

During the past 100 years, the vegetation of the Plott Balsam Mountains has been altered markedly by fires, logging, agriculture, and human settlement—resulting in a complex mosaic of successional, climax, and disclimax communities. Although no studies have dealt exclusively with the vegetation of the range, the data of Ramseur (1960) and Stupka (1964), Whittaker's (1956) detailed study from the adjacent Great Smoky Mountains, and my notes from the present study provide the following descriptive classification of major plant community-types in the Plott Balsam Mountains. Extensive botanical work remains to be done in analyzing and classifying the vegetation of the range.

Spruce-fir Forests

Once covering much of the terrain above 1400 m, forests dominated by red spruce (*Picea rubens*) and Fraser fir (*Abies fraseri*) have been reduced by fires and logging. Other canopy trees include mountain ash (*Sorbus americana*), fire cherry (*Prunus pensylvanica*), mountain maple (*Acer spicatum*), striped maple (*A. pensylvanicum*), and

*For rough conversion of meters to feet, multiply elevations by 3 (1500 m x 3 = about 4500 feet). For accurate conversion, multiply by 3.048 (1500 m x 3.048 = 4572 feet).

yellow birch (*Betula alleghaniensis*). Understory shrubs include Canada blackberry (*Rubus canadensis*), red-berried elder (*Sambucus pubens*), mountain cranberry (*Vaccinium erythrocarpum*), hobblebush (*Viburnum alnifolium*), and the seedlings of canopy species.

Northern Hardwood Forests

Forests dominated by beech (*Fagus grandifolia*), and yellow birch occur at elevations above 1350 m, often along the lower border of the spruce-fir community. Other canopy trees include the sugar maple (*A. saccharum*), red maple (*A. rubrum*), yellow buckeye (*Aesculus octandra*), striped maple, mountain maple, fire cherry, and serviceberry (*Amelanchier laevis*), while the shrub layer includes canopy species seedlings, rosebay rhododendron (*Rhododendron maximum*), Catawba rhododendron (*R. catawbiense*), dog-hobble (*Leucothoe fontanesiana*), hydrangea (*Hydrangea arborescens*), and hobblebush.

Grass Balds

On some peaks and exposed slopes above 1500 m, forest and shrub communities are absent and the terrain is covered by open expanses of grass bald dominated usually by mountain oat grass (*Danthonia compressa*). Often the margins of the balds are infiltrated by blueberries (*Vaccinium* sp.), rhododendrons, serviceberry, blackberry, azaleas, fire cherry, or the seedlings of forest canopy species.

Heath Balds

Dominated by ericaceous shrubs, the heath balds or "slicks" often form a virtually impenetrable tangle covering many of the steep, exposed slopes and ridges above 1200 m. Principal species include mountain laurel (*Kalmia latifolia*), rosebay rhododendron, piedmont rhododendron (*R. minus*), Catawba rhododendron, pepper-bush (*Clethra acuminata*), fetterbush (*Pieris floribunda*), blueberries, deerberry (*V. stamineum*) and mountain winterberry (*Ilex montana*).

Oak Forests

Most of the slopes and ridges below 1350 m are covered by forests dominated by various oaks (*Quercus* sp.). Locally these forests may extend up to 1650 m, where the growth becomes open and attenuated forming the "oak orchard" pattern. Common canopy species include white oak (*Quercus alba*), scarlet oak (*Q. coccinea*), chestnut oak (*Q. prinus*), black oak (*Q. velutina*), northern red oak (*Q. rubra*), red maple, sourwood (*Oxydendrum arboreum*), table mountain pine (*Pinus pungens*), pitch pine (*P. rigida*), white pine (*P. strobus*), silverbell (*Halesia carolina*), tulip poplar (*Liriodendron tulipifera*), sweet birch (*B. lenta*), and black gum (*Nyssa sylvatica*). Prominent shrubs forming the understory include mountain laurel, flame azalea (*R. calendulaceum*), blueberries (*Vaccinium* sp.), flowering dogwood (*Cornus florida*), pepperbush, hydrangea, sweet shrub (*Calycanthus floridus*), and blackberry.

Pine Forests

On exposed, steep, dry, south and southwestern facing slopes and ridges below 1200 m, forests dominated by pines often replace the more mesic oak forests. Major species, depending largely on elevation and slope, are Virginia pine (*P. virginiana*), pitch pine, and table mountain pine, while scarlet oak, chestnut oak, black oak, white oak, chestnut (*Castanea dentata*), white pine, black gum, and red maple may be common. Usually the understory is dominated by mountain laurel and *Vaccinium* species.

Cove Hardwood Forests

In moist coves and sheltered ravines up to 1250 m, a forest dominated by sugar maple, yellow buckeye, yellow birch, beech, silverbell, tulip poplar, northern red oak, eastern hemlock (*Tsuga canadensis*), red maple, white oak, basswood (*Tilia heterophylla*), and white ash (*Fraxinus americana*) occurs. The understory is sparse, and



Fig. 1. View of Waterrock Knob (1918 m) showing vegetation typical of high elevations in the Plott Balsam Mountains. Spruce and fir forests are surrounded by northern hardwoods, heath balds, grass balds, and secondary successional communities. (Photo by the author).

plant species include rhododendrons, mountain laurel, hobblebush, dogwood, hydrangea, and sweet shrub. Ferns and wild flowers are abundant.

Secondary Successional Communities

Human activities and various natural phenomena have caused extensive disruption of the original vegetation at all elevations, and most of the range is covered by successional communities. The species composition, structure, and evolution of these successional communities depend in large part on elevation, exposure, slope, severity of soil damage, original vegetation, and adjacent undisturbed communities. Successional communities apparently are more likely to progress toward the original or very similar types of forests at low and medium elevations, when slope and exposure are not severe, and when soil damage is minimal.

Disclimax Communities

Where continued human activity prevents the development of successional communities, a variety of disclimax or artificially stable communities occur. Farmlands, orchards, recreation areas, roadways, campgrounds, and urban-suburban development are common at elevations below 1000 m, often resulting in the occurrence of bird species which otherwise would be absent.

ORNITHOLOGICAL EXPLORATION

During the 1880s, William Brewster (1886), Charles F. Batchelder (1886), and W.A. Jeffries and J.A. Jeffries (1889) very briefly visited the Plott Balsams and reported their observations. Some 60 years later, J.T. Tanner's (1952) study of the Black-capped Chickadee (*Parus atricapillus*) in the southern Appalachians was based in part on field work conducted in the range. Stupka's (1963) book on the Great Smokies and two of my previous papers (Simpson 1968a, 1968b) contain observations from the Plott Bal-

sams, while additional data have been provided by R.H. Peake (pers. com.) and the files of the Blue Ridge Parkway Offices in Balsam and Oteen, N.C. My studies were conducted during the period 1956-1972, mostly during May, June, and July, and principally in the higher elevations, although the range was visited on numerous occasions during all months of the year. Extensive additional field work is needed, particularly in settled or disturbed areas and in the lower elevations, where waterfowl and shorebirds probably have been overlooked. Future studies should center on habitat selection, dates of occurrence, altitudinal distribution, density and population, and nesting data. This paper provides a baseline for future studies in the range.

TERMINOLOGY

The relative abundance and seasonal status terminology used in the checklist are based on that of Mengel (1965) and Stewart and Robbins (1958). Scientific names of birds are omitted in accordance with the policy published in *Chat* 40:10.

ANNOTATED BIRD SPECIES LIST

1. Common Loon: One record, a single bird found dead along the Parkway on 6 May 1961 by Stark and Atchison at 1707 m near Waterrock Knob (Stupka 1963).
2. Turkey Vulture: Permanent resident; uncommon at all elevations, March through October; usually absent above 1200 m November through late February.
3. Black Vulture: Summer resident, rare and erratic April through October, mainly at elevations below 1000 m.
4. Sharp-shinned Hawk: Probably a rare permanent resident, but my records are from April through October, with peak numbers in September and October. Mature forests at all elevations.
5. Cooper's Hawk: Probably a permanent resident. The only records are 27 March 1965 at 1460 m on Waterrock Knob and 18 October 1969 at 1270 m on Jones Knob.
6. Red-tailed Hawk: Permanent resident, all elevations. Increasingly scarce at higher elevations. Uncommon May through October; uncommon to rare, November through April.
7. Red-shouldered Hawk: Winter resident, mainly below 1100 m. Rare, November through February.
8. Broad-winged Hawk: Summer resident, all elevations. Uncommon, April through October.
9. Golden Eagle: One record, a single bird soaring over Jones Knob on 18 October 1969.
10. Marsh Hawk: Winter resident; open areas at all elevations. Scarce above 1200 m. Uncommon to rare, late September through early April.
11. American Kestrel: Permanent resident; uncommon to rare; open areas, mainly below 1200 m.
12. Ruffed Grouse: Fairly common permanent resident, mature forests at all elevations.
13. Bobwhite: Uncommon permanent resident below 1000 m; occurs at all elevations from May through August in mature woodlands and fields.
14. Turkey: J.L. Fleetwood (pers. com.) reports this species as a rare permanent resident in forests below 1350 m.
15. Sora: One record, a single bird seen by author at 1430 m along the Parkway on Waterrock Knob on 4 October 1969.
16. Killdeer: Permanent resident; open areas, mainly below 1200 m. Uncommon and erratic.
17. American Woodcock: Uncommon resident from March through November in grass balds, early successional and disclimax communities at all elevations.
18. Mourning Dove: Permanent resident; fairly common in fields and disturbed areas, generally below 900 m.
19. Yellow-billed Cuckoo: Uncommon summer resident May through October in

- mature forests up to 1200 m.
20. Black-billed Cuckoo: Uncommon to rare summer resident, May through October, in mature forests up to 1650 m.
 21. Screech Owl: Uncommon to rare permanent resident in mature forests up to 1200 m.
 22. Great Horned Owl: Uncommon to rare permanent resident in mature forests up to 1500 m.
 23. Barred Owl: Fairly common to uncommon permanent resident in mature forests at all elevations.
 24. Saw-whet Owl: Although probably a permanent resident, the only records are of single birds calling from the spruce-fir forests of Waterrock Knob at 1760 m on 12 April and 10 May 1968 (Simpson 1968b).
 25. Whip-poor-will: Fairly common summer resident below 1000 m, April through October.
 26. Common Nighthawk: Spring and fall transient; rare in May and fairly common July through September at all elevations.
 27. Chimney Swift: Common summer resident at all elevations from early April through early October.
 28. Ruby-throated Hummingbird: Fairly common summer resident at all elevations from late April through October.
 29. Belted Kingfisher: Permanent resident along streams up to 1000 m; fairly common April through October; uncommon November through March.
 30. Common Flicker: Fairly common permanent resident in forests at all elevations. Often abandons elevations above 1200 m during late fall and winter.
 31. Pileated Woodpecker: Uncommon permanent resident in mature deciduous forests at all elevations, although scarce above 1400 m.
 32. Red-bellied Woodpecker: Fairly common permanent resident in deciduous forests below 1250 m.
 33. Yellow-bellied Sapsucker: Uncommon to rare permanent resident; mature deciduous forests above 1200 m, April through October; all elevations October through March, but scarce above 1300 m.
 34. Hairy Woodpecker: Uncommon permanent resident in forests at all elevations.
 35. Downy Woodpecker: Fairly common permanent resident in forests at all elevations; scarce above 1500 m.
 36. Eastern Kingbird: Fairly common summer resident in open fields and farmlands below 900 m from late April through mid-September.
 37. Great Crested Flycatcher: Fairly common summer resident, late April through mid-August, in deciduous forests below 1250 m.
 38. Eastern Phoebe: Fairly common permanent resident up to 1300 m.
 39. Acadian Flycatcher: Fairly common summer resident late April through mid-September in cove hardwoods and mesic oak forests up to 1150 m.
 40. Least Flycatcher: Uncommon and local summer resident in open forests bordering clearings from late April through mid-September at elevations up to 1350 m.
 41. Eastern Wood Pewee: Common summer resident in forests up to 1400 m from late April through mid-October.
 42. Horned Lark: Two records: one at 1760 m on Waterrock Knob in June 1956 and one at 1030 m at Balsam Gap on 5 October 1969.
 43. Tree Swallow: Uncommon and erratic transient, mainly below 1200 m; April and September.
 44. Rough-winged Swallow: Fairly common summer resident below 1350 m, early April to mid-August; often at all elevations after mid-July.
 45. Barn Swallow: Uncommon to fairly common summer resident in farmlands up to 1000 m from mid-April through mid-September.
 46. Purple Martin: Uncommon to rare local summer resident, April through August; below 950 m except after late July, when individuals wander to all elevations.

47. Blue Jay: Common permanent resident in forests at all elevations; less common above 1550 m.
48. Common Raven: Uncommon permanent resident in forests above 1250 m.
49. Common Crow: Common permanent resident. All elevations from April through late October; usually avoids elevations above 1450 m from November through March.
50. Black-capped Chickadee: Uncommon permanent resident in spruce-fir and northern hardwood forests; wanders to elevations below 1400 m in October through April. First reported here by Batchelder (1886), who collected a series of specimens, this species reaches its presently established southern breeding limit for the eastern United States in the Plott Balsams (Tanner 1952).
51. Carolina Chickadee: Common permanent resident in forests up to 1300 m.
52. Tufted Titmouse: Common permanent resident in forests up to 1600 m.
53. White-breasted Nuthatch: Fairly common permanent resident in deciduous forests up to 1600 m. Usually abandons area above 1250 m from November through March.
54. Red-breasted Nuthatch: Erratic resident, rare to common. Spruce-fir forests above 1300 m April to October; all elevations from November through March.
55. Brown Creeper: Uncommon permanent resident. Spruce-fir forests above 1300 m from April through October; forests at all elevations from November through March.
56. House Wren: Uncommon summer resident, April through October, mainly around human settlement below 1000 m.
57. Winter Wren: Fairly common permanent resident. All elevations from October through mid-April, although scarce above 1500 m; understory of forests and heath balds above 1100 m from late April through September.
58. Bewick's Wren: Erratic, uncommon to rare summer resident in deciduous forests below 1350 m; April through September.
59. Carolina Wren: Fairly common permanent resident up to 1100 m; wanders to all elevations July to November.
60. Mockingbird: Permanent resident in fields and disclimax communities below 900 m. Uncommon, April through November; rare and erratic, December through March.
61. Gray Catbird: Common summer resident in understory, scrubby secondary growth, and heath balds at all elevations from April through early October.
62. Brown Thrasher: Fairly common summer resident, April through October in heath balds, shrub understory, and secondary successional communities up to 1500 m.
63. American Robin: Permanent resident in forests at all elevations. Common, March through November; uncommon, especially above 1350 m, December through February.
64. Wood Thrush: Common summer resident in mature deciduous forests up to 1450 m from mid-April through mid-October.
65. Hermit Thrush: Fairly common to uncommon winter resident, late October to mid-April, in forests below 1100 m. All elevations during migration in April and October.
66. Swainson's Thrush: Transient at all elevations; rare in May; fairly common in September and October.
67. Gray-cheeked Thrush: Rare transient, September and October, at all elevations.
68. Veery: Common summer resident in forests, heath balds, and secondary successional communities at elevations above 1100 m from May through mid-September. Transient at all elevations in May and September.
69. Eastern Bluebird: Uncommon permanent resident in open areas and disclimax communities up to 1350 m; rare above 950 m from November through March.
70. Blue-gray Gnatcatcher: Fairly common summer resident in deciduous forests up to 950 m from April through early October.

71. Golden-crowned Kinglet: Fairly common permanent resident. All elevations, late October through mid-April. Spruce-fir forests above 1350 m from April through September.
72. Ruby-crowned Kinglet: Fairly common winter resident, mainly below 1450 m, from October through April.
73. Water Pipit: Rare and erratic winter resident in fields and clearings below 1450 m; October through April.
74. Cedar Waxwing: Erratic resident; all elevations May through September; usually below 1350 m from late October through April.
75. Loggerhead Shrike: Uncommon to rare winter resident in open areas below 900 m; August through March.
76. Starling: Fairly common permanent resident around farms and human settlement up to 1000 m.
77. White-eyed Vireo: Fairly common summer resident in shrub understory from mid-April through September up to 950 m.
78. Yellow-throated Vireo: Fairly common summer resident, mid-April through September; mainly in pine forests up to 950 m.
79. Solitary Vireo: Fairly common summer resident, late March through October at elevations above 850 m; transient at all elevations March-April and October.
80. Red-eyed Vireo: Common summer resident, late April through early October, in mature forests up to 1550 m.
81. Black-and-white Warbler: Fairly common summer resident, April through early October, in mature forests up to 1550 m.
82. Worm-eating Warbler: Uncommon summer resident, late April through September, in mature oak forests up to 1250 m.
83. Golden-winged Warbler: Uncommon summer resident, mid-April through September, in disturbed woodlands up to 1650 m.
84. Tennessee Warbler: Transient at all elevations; uncommon to rare, late April to mid-May; fairly common September and October.
85. Northern Parula: Fairly common summer resident, April through September, in forests up to 1500 m.
86. Yellow Warbler: Fairly common summer resident, mid-April through August, in deciduous forests up to 975 m.
87. Magnolia Warbler: Transient; uncommon, May; fairly common, September and October; all elevations.
88. Cape May Warbler: Transient at all elevations; fairly common, late April to early May and late September through October.
89. Black-throated Blue Warbler: Common summer resident; late April through late October; in forest understory, heath balds, and secondary successional communities above 850 m. Transient at all elevations, April-May and September-October.
90. Yellow-rumped Warbler: Winter resident; fairly common in forests up to 1350 m from October through early May; transient at all elevations, October and April.
91. Black-throated Green Warbler: Fairly common summer resident, April through mid-October; in mature forests, especially coniferous, at all elevations.
92. Cerulean Warbler: Transient, rare to uncommon, April and May, below 1350 m.
93. Blackburnian Warbler: Uncommon summer resident above 1000 m, mid-April through early October; mainly in spruce-fir and northern hardwoods. Transient at all elevations, April-May and September-October.
94. Yellow-throated Warbler: Fairly common summer resident, April through September, especially in pine forests, up to 850 m.
95. Chestnut-sided Warbler: Common summer resident, mid-April through early October, in disturbed forests, heath balds, and secondary successional communities at all elevations above 975 m. Fairly common transient at all elevations, April and September.
96. Bay-breasted Warbler: Transient at all elevations. Uncommon to rare, May; un-

- common to fairly common, September and October.
97. Blackpoll Warbler: Transient, mainly below 1650 m. Common in May; rare, October.
 98. Pine Warbler: Uncommon summer resident in pine forests below 800 m from March through October. Postbreeding wanderer to all elevations from July through October.
 99. Prairie Warbler: Uncommon summer resident, April through September, in second growth and disturbed areas up to 850 m. Postbreeding wanderer to all elevations after early August.
 100. Palm Warbler: Uncommon to rare transient; all elevations, April-May and September-October.
 101. Ovenbird: Common summer resident, mid-April to early October in forests up to 1400 m. Fall transient at all elevations from September through mid-October.
 102. Louisiana Waterthrush: Fairly common summer resident, late March through mid-September; wooded streams up to 1150 m.
 103. Kentucky Warbler: Fairly common summer resident late April to mid-September in deciduous forests up to 1050 m.
 104. Common Yellowthroat: Fairly common summer resident in disturbed areas, heath balds, and secondary successional communities at all elevations; late April to mid-October.
 105. Yellow-breasted Chat: Fairly common summer resident in shrub growth up to 1100 m; late April to mid-September.
 106. Hooded Warbler: Fairly common summer resident, mid-April to mid-October, in deciduous forests up to 1200 m. Postbreeding wanderer to all elevations after late July.
 107. Canada Warbler: Common summer resident, late April to mid-September, in forest understorey, heath balds, and secondary successional communities above 1150 m. Transient at all elevations, April-May and August-September.
 108. American Redstart: Fairly common summer resident, late April to mid-October, in forests up to 800 m. Postbreeding wanderer to all elevations after early August.
 109. House Sparrow: Uncommon permanent resident around farms and human settlement up to 1050 m.
 110. Eastern Meadowlark: Fairly common transient in open areas at all elevations, February through May and October through November. Uncommon summer resident and rare winter resident in farmlands up to 1050 m.
 111. Red-winged Blackbird: Erratic transient in open areas up to 1500 m, late February through April and October-November. Uncommon permanent resident in farmland and open areas below 1000 m.
 112. Rusty Blackbird: Uncommon to rare transient up to 1550 m, March-April and November.
 113. Common Grackle: Fairly common summer resident in farmlands and open forests up to 900 m, March through November. Erratic and rare transient up to 1500 m, March-April and November.
 114. Brown-headed Cowbird: Uncommon summer resident in farmlands up to 1050 m, March through November. Transient up to 1500 m; uncommon, March-April; rare, October-November.
 115. Scarlet Tanager: Uncommon summer resident, mid-April to early October, in mature deciduous forests up to 1500 m.
 116. Summer Tanager: Uncommon to rare summer resident, late April through early October, in deciduous forests up to 850 m.
 117. Cardinal: Fairly common permanent resident up to 1100 m.
 118. Rose-breasted Grosbeak: Fairly common summer resident, late April to mid-October, in deciduous and spruce-fir forests above 1000 m. Transient, all elevations, April-May and August-October.
 119. Indigo Bunting: Fairly common summer resident, late April through mid-October,

- in disclimax and secondary successional communities up to 1700 m.
120. Evening Grosbeak: Erratic winter resident, late November through early April, at elevations up to 1350 m.
 121. Purple Finch: Fairly common winter resident, late October through mid-April, in forests at all elevations.
 122. Pine Siskin: Erratic, possibly permanent resident. Flocks of 25 to 100 birds noted in spruce-fir and deciduous forests above 1450 m in June 1957, July through November 1968, September 1969, and February 1970.
 123. American Goldfinch: Permanent resident in successional and disclimax communities at all elevations. Fairly common, April through October; uncommon, November through March, especially above 1350 m.
 124. Red Crossbill: Erratic, probably resident. Most records are of flocks of 5 to 20 birds from June through December.
 125. Rufous-sided Towhee: Permanent resident in heath balds, forest shrub layer, and successional communities. Common at all elevations, April through October; uncommon to rare above 1550 m from November to March.
 126. Savannah Sparrow: Uncommon spring and fall transient, April-May and late October to November, in fields and open areas up to 1450 m.
 127. Vesper Sparrow: Uncommon spring and fall transient, all elevations, open areas, March-April and October-November. Uncommon to rare winter resident below 1200 m.
 128. Dark-eyed Junco: Permanent resident. Common to abundant at all elevations, October through April; above 950 m, May through September.
 129. Chipping Sparrow: Fairly common summer resident, March to early November; open woodlands up to 1400 m.
 130. Field Sparrow: Fairly common permanent resident in fields and farmlands below 1000 m. Rare summer resident in borders of grass and heath balds and successional communities up to 1750 m from April through October.
 131. White-crowned Sparrow: Three birds just west of Balsam Gap at 1120 m on 14 February 1970.
 132. White-throated Sparrow: Common winter resident, October through early May, up to 1100 m. Transient at all elevations; fairly common to very common, November and March.
 133. Fox Sparrow: Uncommon winter resident in forest understory below 900 m, November through March. Uncommon transient at all elevations in November and March.
 134. Swamp Sparrow: Rare to uncommon winter resident in wet fields and meadows below 900 m; late October through April. Uncommon to rare transient at all elevations, October-November and April.
 135. Song Sparrow: Permanent resident in heath balds, successional communities, and disturbed areas. Common at all elevations, March through October; often abandons areas above 1250 m from November through February.

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