BIRD RECORDS FOR THE SADDLE BAG MOUNTAIN AREA OF LINCOLN AND TILLAMOOK COUNTIES

Range D. Bayer, P. O. Box 1467, Newport, Oregon 97365
Jane C. Dirks-Edmunds, Hillside Manor, Apt. 329, 900 North Hill Road, McMinnville, Oregon 97128
James A. Macnab (deceased)
Dorothy McKey-Fender, 835 Ashwood Avenue, McMinnville, Oregon 97128

Bayer, R. D., J. C. Dirks-Edmunds, J. A. Macnab, and D. McKey-Fender. 1994. Bird records for the Saddle Bag Mountain area of Lincoln and Tillamook Counties. Journal of Oregon Ornithology 3:261-310.

ABSTRACT.--The results of 703 observations are given; most of these were made in the 1930's by James Macnab, Jane Claire Dirks-Edmunds, Dorothy McKey-Fender, and others. These results are the most comprehensive throughout the year for any site above 1,000 ft in Lincoln County and hint that bird communities at sites above 1,400 ft are less diverse than sites nearer sea level. However, many more systematic observations throughout the year are needed to elucidate the significance of elevation on bird diversity.

Two marshes on Saddle Bag Mountain are the only locations where Common Snipe appear to nest in Lincoln County.

TABLE OF CONTENTS FOR THE ENTIRE ARTICLE

Chap. 1. INTRODUCTION TO THIS ARTICLE

1-A. AUTHOR'S DIVISION OF LABOR

Dirks-Edmunds, Macnab, McKey-Fender, and others made the pre-1985 observations, and Dirks-Edmunds and McKey-Fender compiled their records.

Bayer re-compiled their records into the format given in this article, wrote this article, and led the 1985-1990 observations (Chap. 7).

Dirks-Edmunds and McKey-Fender were unaware that they were going to be listed as co-authors, and neither has seen the completed draft, although Dirks-Edmunds saw and commented on earlier drafts (section 1-E). Ideally, they should have gone over the final draft and agreed to being authors (e.g., see Dickson et al. 1978, Bishop 1984:76-78).

1-B. ALPINE AREAS IN THE OREGON COAST RANGE

Mountains in the Oregon Coast Range are often covered with forest or vegetation (Fig. 7.2) and do not look like the craggy or snow-capped mountains of the Cascades. Nevertheless, people visiting Coast Range Mountains can be impressed by differences in vegetation and bird communities at elevations of about 1,400 ft (427 m) or more.

Alpine areas occur at lower elevations as one approaches the Pacific Ocean. For example, in

Washington, the Canadian Life Zone starts at about 2,800 ft (853 m) in the coastal Olympic Mountains but at 4,500 ft (1,372 m) in the Cascades (Lyons 1956:14). Unfortunately, this is not widely understood, and Bailey (1936) and Gabrielson and Jewett (1940:35, 38) indicate that the Canadian Zone only occurs along the Oregon Coast in the narrow coastal strip of lodgepole pines and in a few "islands" on the highest peaks in the Coast Range.

However, the Canadian Zone appears to be much more widely distributed in the Oregon Coast Range than these authors were aware of. For example, Bayer found some plants indicative of the Canadian Zone (Gabrielson and Jewett 1940:38) such as Pacific silver fir, noble fir, white pine, and rhododendrons above about 2,500 ft (762 m) during his visits to Saddle Bag Mountain (section 7-A). The extent of areas 2,500 ft or more in the Oregon Coast Range are greater than what Bayer would describe as islands. Islands may better describe areas of the Hudsonian Life Zone in the Coast Range; for instance, mountain hemlock, an indicator of the Hudsonian Zone, grows near the top of Mary's Peak in Benton County's Coast Range.

Although there have been many recent ornithological studies in the Oregon Coast Range, the importance of elevation on bird communities appears to be largely unrecognized. This is unfortunate because bird communities are generally less diverse at higher elevations (e.g., MacArthur 1972:107, 137-140; Massa and Federigo 1989, Finch 1991, Navarro 1992, Stevens 1992) as discussed in Bayer (1993:6-8). For example, Bailey (1936:36-40) writes that there are 88 breeding species in Oregon in the low elevation Humid Division of the Transition Life Zone but only 46 in the Humid Division of the Canadian Zone and just five in the Hudsonian Zone.

Hopefully, future researchers in the Oregon Coast Range will explore changes in bird communities with altitude to try to determine at what elevations bird diversity begins to decrease. In the interim, the only high altitude studies in Lincoln County with many details are the three observations done by Floyd Schrock (Llewellyn and Bayer 1994:163-164) and the studies in this article.

1-C. INTRODUCTION TO 1935-1938 OBSERVATIONS

Beginning in the early 1930's, pioneering ecological studies were conducted at a field station (i.e., the Station) on Saddle Bag Mountain (which was until recently also known as Saddleback Mountain)(see McArthur 1982:641-642). These studies were by James A. Macnab (now deceased) of Linfield College and his students, including Jane Claire Dirks, who received her B.A. degree from Linfield in 1937 (Dirks 1941:161). There were also many other people involved in these studies, especially Dorothy McKey-Fender (e.g., see Dirks-Edmunds 1947:241 and Macnab 1958:21-22).

Through the University of Nebraska, Macnab based his Ph.D. work on research at Saddle Bag Mountain (Macnab 1944, 1958).

Based partially on her Saddle Bag Mountain research, Dirk's Ph.D. program was at the University of Illinois, where Victor Shelford directed her studies and S. Charles Kendeigh was also on her thesis committee (Dirks 1940, 1941, Dirks-Edmunds 1947). Her background prior to finishing her Ph.D. is in Dirks (1941:161).

Macnab's and Dirks-Edmunds' ecological research more fully describes the total floral and faunal environment of any site in Lincoln County (and perhaps in western Oregon) than any other study. Further, the bird records at their Station (Chap. 2) are the only regularly made records available for any location above 1,000 ft (305 m) in Lincoln County. Citations to birds in their published papers are given in Table 2.1.

Unfortunately, Macnab's and Dirks-Edmunds' research has often been overlooked and was mistakenly not included in Scott et al. (1972). Thanks to Egger's (1980) bibliography that cites Macnab (1944) and Dirks-Edmunds (1947), Bayer first learned of their work sometime prior to 1987.

1-D. INTRODUCTION TO 1959-1964 OBSERVATIONS

Dirks-Edmunds, then a Professor of Biology at Linfield College, received a National Science Foundation grant to conduct a follow-up study to her earlier work, and she and some of her students did further ecological research at the Station in 1959-1964.

In at least 1987, Dirks-Edmunds was writing a book on her computer about this project, with Dorothy McKey-Fender's assistance.

1-E. BAYER'S EDITING OF 1932-1941 & 1959-1964 OBSERVATIONS

Bayer already knew of Macnab's and Dirks-Edmunds' research when he serendipitously learned in December 1986 or January 1987 at a Toastmaster's "This is Your Life" party in Newport for Dale Snow that Dirks-Edmunds had been Dale's major professor at Linfield College. Dale also said that Dirks-Edmunds was then retired and living in McMinnville, and Paul Brookhyser, who had been in charge of organizing Dale's party, gave me her address.

Bayer wrote her in January 1987, and she promptly wrote back that she had much material that might be useful if he visited. Bayer first visited her and Dorothy McKey-Fender on 13 April 1987 and then later visited Dirks-Edmunds on 3 July 1987. During these visits, Bayer paid for

the photocopies that he made at the photocopier at Dirks-Edmunds' place of residence to copy Macnab's 1932-1941 ecological field trip notes, McKey-Fender's 1935-1938 compilation of Macnab's bird records along trails and the Station, and Dirks-Edmunds' 1935-1938 and 1959-1964 compilations of her bird records at the Station.

In 1987-1988, Dirks-Edmunds and Bayer conducted correspondence about some of the questions Bayer had about interpreting their bird records, and she provided some additional identifications for some of the taxa not identified to species in their compilations. Dirks-Edmunds was helpful in answering Bayer's questions, but she disagreed with his pooling of some of the data, his treatment of 1932-1934 observations, and his "warts and all" approach to editing their observations.

In October 1988, our disagreements reached an impasse that was eventually somewhat resolved, so that in response to Bayer's October 1989 draft of their results, Dirks-Edmunds replied in November 1989 that the draft looked in "reasonable condition" for Bayer's plans to publish it as part of a monograph about birds in the Lincoln County Coast Range. Since then, we have not conversed or corresponded, and she has not seen this paper in the present format, nor has she seen this Chapter, although the substance of Chaps. 2-6 is largely the same as in the October 1989 draft that she did see.

Unfortunately, the amount of material Bayer has compiled for the Lincoln County Coast Range has been too unmanageable to publish in a single monograph, and parts of it were published in Faxon and Bayer (1991) and in most of the second issue of Journal of Oregon Ornithology (JOO). Other parts still remain unpublished, but the creation of JOO in 1993 resulted in a place for this paper to be published separately.

Bayer has relied on McKey-Fender's and Dirks-Edmunds' compilations of bird records, not Macnab's or Dirks-Edmunds' original field notes; consequently, results given here may differ somewhat from their field notes. Bayer has relied on their compilations because he felt that omissions or corrections may be included in a compilation and not in the original field notes. However, his assumption may be incorrect, or the original notes may include material not given in a compilation. Rather than trying to reconcile differences between compilations and the original field notes, Bayer chose to use the compilations.

McKey-Fender and Dirks-Edmunds have usually compiled records of the number of birds recorded during individual visits, but Bayer has pooled records of bird presence (not abundance) during semimonthly periods. He has done so because it was his impression that many birds could have been missed during their visits and that semimonthly presence gives a better overview of their results. Bayer has chosen to not include their 1932-1934 and 1939-1941 observations, unless there was a specific record of note, because he felt that these observations were not as systematic as their 1935-1938 observations.

Although Bayer points out shortcomings in their records, he wants to make it abundantly clear that he is not disparaging these researcher's efforts--he has a great respect for them and their work. Their efforts were state-of-the-art in their time. Nevertheless, he thinks it is essential to point out shortcomings (section 2-E-2), so that the reader can better interpret the results, and he has also done so in his own observations (e.g., section 7-B), so he is not picking on these researchers.

In any case, the reader is advised that Macnab (if he were alive), Dirks-Edmunds, or McKey-Fender may interpret their research much differently than Bayer has in this paper, and they may feel that he has done their research a disservice. Bayer's interpretations are his opinions and may be in error.

1-F. DISPOSITION OF PHOTOCOPIES OF MACNAB'S FIELD NOTES

In Dirks-Edmunds' letter to Bayer that he received on 13 November 1987, she indicated that Bayer could give the photocopies that he made of their material to Paul Farber, who is in charge of the Archive for the History of Science and Technology at Oregon State University and who is now Chairman of the Department of History there. Bayer plans on doing so after this article is published.

1-G. OUTLINE OF THIS PAPER

Most of Macnab's and Dirks-Edmunds' observations were at the Station and are discussed in Chapter 2, but they also made incidental observations while they were walking to and from the Station, and these are included in Chapters 3-6. Note that these Chapters are not a recapitulation of their published work (see Table 2.1) but give material in unpublished compilations of their field notes.

In Chap. 7, results are given from observations that were made by Bayer and others at elevations of 2,500 ft or more on Saddle Bag Mountain in 1985-1990. This is done because these observations are in the same general vicinity as those by Macnab and Dirks-Edmunds (Fig. 7.1), so that it is more efficient to include them in this paper.

Chap. 2. RECORDS AT A 1,400-1,500 FT STATION IN LINCOLN COUNTY BY MACNAB, DIRKS-EDMUNDS, AND OTHERS

2-A. INTRODUCTION TO STATION AND TRAILS

The Station was the focal point of Macnab's (1944, 1958) and Dirks-Edmunds' (1940, 1941, 1947) research. Table 2.1 lists pages with records or comments about birds in their published papers; again, please note that this paper is not a recapitulation of their published results.

They also made some observations in 1932-1934 and 1939-1941 that Bayer has generally chosen not to include because he thought they appeared too incidental.

2-B. STATION STUDY AREA

Location: T6S, R9W, Section 24, SW 1/4
Area Studied: <5 ac (<2 ha)
Habitat(s): Old-growth Coniferous Forest
Elevation: 1400-1500 ft (427-457 m)
Distance to Coastline: 13.0 mi (21.1 km).

In 1935-1938, Dirks (1941:7) indicates that her bird observations were within a 1 ha (2.5 ac) area, although she also conducted other ecological research in an area of approximately 2 ha (4.9 ac) (Dirks-Edmunds 1947:237). Macnab (1958:Fig. 4) indicates that the intensively studied area was 1.25 ha (3.1 ac). Because some of these observations were probably not within Dirks' 1 ha plot, my impression is that the size of area studied at the Station (Fig. 2.1) is approximately 1-2 ha.

In 1959-1964, the study area was 1 ha (2.5 ac)(Dirks-Edmunds, pers. comm.).

Macnab (1958:22) describes the elevation of the Station as between 1400 and 1500 ft, and Dirks-Edmunds (1947:237) describes the elevation as being at an average of 1400 ft.

A full description of the flora, fauna, and climate at the Station in the 1930's is given in Dirks-Edmunds (1947) and Macnab (1958). Briefly, in 1935-1938, the Station was covered by coniferous forest with a canopy about 250-300 ft (76-91 m) high that was mainly even-aged Douglas-fir about 250 years old with a few isolated noble firs that also averaged about 250 years old. The understory was western hemlock of varying ages with the larger ones being 95-270 years old and up to 150 ft (46 m) tall (Macnab 1958:24-25). Below the hemlock understory were scattered 3-10 ft (0.9-3 m) shrubs and a herbaceous layer (Macnab 1958:25). The average temperature for four years during the 1930's was 50 F with temperatures above 70 F being rare (Macnab 1958:26); many of the weather characteristics are also discussed in Dirks (1941, 1947) and Macnab (1958).

In 1939-1940, the Station was logged (Macnab 1958:24).

In 1959-1960, young conifers covered about 70-80% of the area (Dirks-Edmunds, pers. comm.); their average height was 35-40 ft (11-12 m). There then appeared to be about twice as many hemlocks as Douglas-firs, and there were also a few noble firs. Interspersed among the dense thickets of young trees were openings, most of which were small and formed by the falling of large trees or by persisting dense salal and huckleberry. Fireweed and bracken fern formed a dense cover 5-6 ft (1.5-1.8 m) high in the openings during the summer, largely dominating the open areas, although many of the original herbaceous plants persisted beneath them.

Hines (1971) has also studied plants on Saddle Bag Mountain.

2-C. METHODS AT STATION AND TRAILS

The following is derived from conversations and correspondence with Dirks-Edmunds in 1987-1988.

2-C-1. 1935-1938 OBSERVATIONS AT STATION AND TRAILS

Observers occasionally had binoculars but mostly relied on their unaided eyes and especially their ears to detect birds. Their field guides were Bailey (1902), Hoffmann (1927), and Taverner (1926, 1934). Since phonograph records with bird calls had not yet been produced, the researchers could not use records to help learn bird calls. Birds that were collected and whose identity were in question were taken to S. G. Jewett for identification. Similarly, only one of 25 Portland birders to Malheur in 1939 had binoculars, and their field guides were inadequate (Marshall 1992:13). Good field guides and

relatively inexpensive, good binoculars were not available in the 1930's.

At the Station, there were usually 4-5 days of observations each month during 1935-1937 (Table 2.2), with usually one day of observation each week. Usually, researchers hiked in, did their research, and hiked out during the same day. But in September and October 1936 and July, August, and October 1937, the observers stayed overnight in the vicinity of the Station a few times and conducted research on the following day.

At the Station, birds were noted while the researchers conducted other research or while walking around the Station specifically looking for birds. Elsewhere (Fig. 2.1), birds were recorded while the observers were hiking to and from the Station along either Trail I or Trail II (Chap. 6) and then along Trail F (Chap. 5) and Trail G (Chap. 4); some observations were also occasionally made south of the Station at Trail M (Chap. 3).

2-C-2. 1959-1964 OBSERVATIONS AT THE STATION

These observations were made while conducting other ecological research, as in the 1930's. Most observations were during July-September, although some were also in other months (Table 2.3).

****

2-D. TOLERABLE OBSERVATION EFFORT (TOE)

The term Tolerable Observation Effort (TOE) is used to emphasize that if certain criteria are attained, effort is judged Tolerable (i.e., moderately good or passable), so that observations can be considered as presence/absence data, not just as presence data (Bayer 1993:14-15). However, TOE does not indicate an effort in which all taxa present were recorded; TOE suggests only that effort was probably sufficient to find most, if not all, conspicuous, common taxa and, perhaps, some of the more inconspicuous or uncommon taxa (Bayer 1993:10-16).

A TOE month is:

1) a month with three or more systematic observations by an experienced observer;
or 2) a month when the number of recorded taxa was 60% or more of the maximum for three or more years for that month, and the observer tried to record all bird taxa present;
or 3) a month when the observer's effort appears systematic enough to record all taxa present, although the observer has less than three years of observations.

The observers often had months with three or more observations (Tables 2.2 and 2.3), and there were many months that had 60% or more of the monthly maximum number of species (Table 2.4). Nevertheless, Bayer is leery of listing many of their months as representing TOE because so few species were usually noted per visit (Tables 2.2 and 2.3) or per month (Table 2.4) and there are a number of shortcomings in their methods (section 2-E).

Bayer feels that it is better to be conservative in assigning TOE because it is better to error in interpreting a lack of records for a species as possibly representing low observation effort (i.e., a non-TOE month) rather than the species as being absent (i.e., a TOE month).

Because Bayer suspects that the observers were probably fairly consistent in their identifications (i.e., they probably consistently recorded some species and consistently missed others), he thinks that some of their months can reasonably be listed as TOE. Accordingly, he partially follows criterion #2 with the additional requirement that there must also be at least eight taxa recorded during a month (Table 2.4). This is a judgment call, especially since their consistency of finding the same terrestrial species every year is lower (especially in 1959-1964)(Table 2.5) than other studies (e.g., Schrock and Bayer 1994:213).

If the reader wishes to use less or more restrictive definitions in defining TOE, he or she can use Tables 2.2-2.4 and section 2-H to redefine TOE.

****

2-E. SHORTCOMINGS OF OBSERVATIONS

2-E-1. INTRODUCTION

In any ornithological undertaking there are shortcomings, and this is no exception. Many possible shortcomings are examined in Bayer (1993:28-31); here, only the most relevant one is examined.

2-E-2. SHORTCOMING: METHODOLOGY

Systematic methods of recording bird abundance or presence that are used today are of rather recent occurrence. Kendeigh's (1944) review appears to be the first that attempts to tackle the problem, and it would not have been available to the Saddle Bag Mountain researchers during their project in the 1930's. Although their observation methods were state-of-the-art in their time, systematic observations today would be done differently.

Currently, researchers recognize that they can miss birds in a forest, even with much good training, optical equipment, and field guides. Accordingly, it is apparent that observations in the 1930's done by researchers with little training in identifying birds by sight or call, who were often without binoculars, who had inadequate field guides, and who were often studying birds incidentally to other research (section 2-C) may have missed some bird species

that were present along the various trails or at the Station (Fig. 2.1).

Given what these researchers had to work with, it is not surprising that they did not find many species per visit or per month at the Station in the 1930's (Tables 2.2-2.4). Thus, the focus needs to be mainly on what birds they found, not on the birds that they may have missed.

****

2-F. RESULTS AND DISCUSSION FOR STATION

2-F-1. TOTAL TAXA

Although 11-25 taxa were noted each year, a total of 31 taxa in 1935-1938 and a total of 35 taxa in 1959-1964 were recorded (Table 2.4). Almost all of these taxa were terrestrial with the majority found each year in 1935-1937, and most were also noted during 3-5 years in 1959-1962 and 1964 (Table 2.5).

2-F-2. TAXA/MONTH

The total number of taxa found monthly ranged from 7 to 20 in 1935-1938 with a peak in May-August (Table 2.4). In 1959-1964, 5 to 25 taxa were noted monthly with a peak in July-August (Table 2.4), which is also when most observations occurred (Table 2.3).

2-F-3. POST-LOGGING CHANGES IN BIRDS IN A YOUNG FOREST

At the Station, there appeared to be a major change in the presence of some bird species between 1935-1937 and 1959-1964 (Table 2.6). After logging in 1939-1940 (Macnab 1958:24), the presence of 11 bird taxa seemed to increase and six bird taxa appeared to decrease in 1959-1964 (Table 2.6).

The apparent differences in bird species after logging may be a result of differences in vegetation, changes in the detectability of birds, and/or changes in the abundance and distribution of individual bird species in this general area in the intervening 20 years.

2-F-4. EFFECTS OF ALTITUDE

At higher elevations and higher Life Zones, the number of bird species is lower than at lower elevations and lower Life Zones (section 1-B). Thus, one reason few species were noted at the Station could be because of its elevation. However, birders have found more bird species during incidental observations at higher elevations in the same area (Chap. 7) than at the Station, so the lack of species can not all be ascribed to elevation.

Many of the species normally considered as migrants along the Oregon Coast were also migratory at the Station. However, three species often thought of as sedentary along the Oregon Coast showed clear signs of being migratory; these species are the Northern Flicker (section 2-H-21), Gray Jay (section 2-H-27), and Steller's Jay (section 2-H-28), all of which appeared to be mainly summer residents at the Station. The movements of these species may represent an altitudinal migration to lower elevations. Another possibility is that they may simply have moved seasonally to different habitats; elevation, per se, may have been less important than habitat in their movements.

****

2-G. FIGURE AND TABLES

Fig. 2.1. Study areas on or near Saddle Bag Mountain (=Saddleback Mountain, see McArthur 1982:641-642) for J. A. Macnab, J. C. Dirks-Edmunds, D. McKey-Fender, and Linfield College students.

To go to the Station, Trail I or Trail II (both in Chap. 6) and then Trail F (Chap. 5) and Trail G (Chap. 4) were hiked to the Station (Chap. 2). Sometimes Trail M south of the Station was also hiked (Chap. 3). Trails I, II, and M are designated differently in this map than they are in Macnab's and Dirks-Edmunds' original notes.

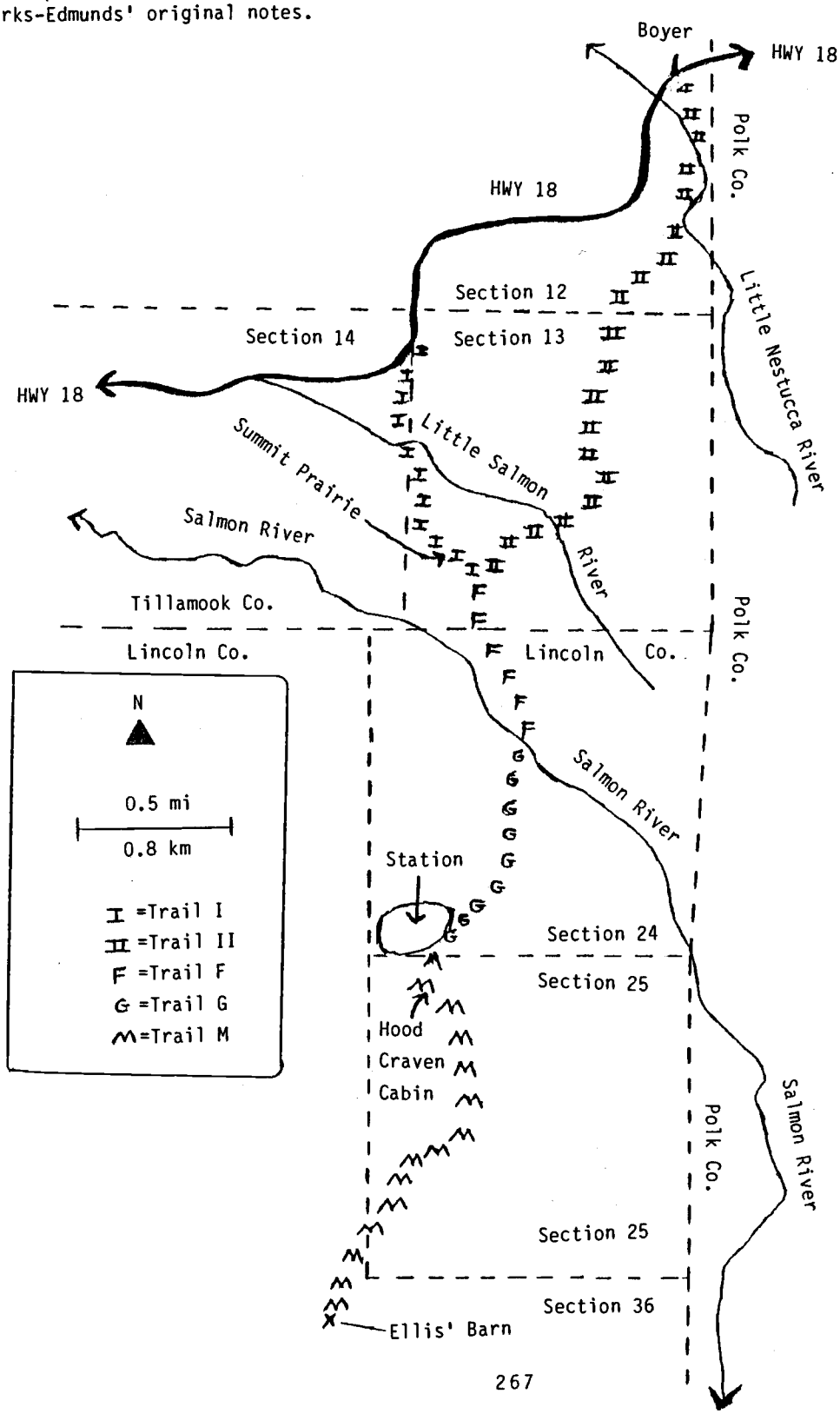

Table 2.1. Bird records or comments in Dirks (1941), Dirks-Edmunds (1947), and Macnab (1958). (Bird records in Macnab [1944] appear to be identical to those in Macnab [1958].)

Dirks (1941): p. 7, 44-46 (her 1935-1938 censuses, which are not in Dirks-Edmunds [1947]), 47-48, 51-53, 119, 128-130, 132-134, 149-150, and 152.
Dirks-Edmunds (1947): 241, 245-247, 250-256, and 258-259.
Macnab (1958): p. 21, 28, 37, 40, 42, 45, and 47-48.

Table 2.2. Number of observations and number of taxa/observation in 1935-1938 at the 1400-1500 ft Station on Saddle Bag Mountain. Taxa not identified to species are not included.

Codes:
N=number of Observations/Month
SD=Standard Deviation
-=not applicable
Yrs=number of years with at least one observation
MAX=maximum (maximum of Means given only if N is two or more.

	Taxa/Observation															
	January				February				March				April				May			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
1935	4	3.0	1.4	2-5	4	2.5	1.0	1-3	4	2.0	0.8	1-3	5	3.6	1.5	2-6	4	4.8	1.5	3-6
1936	4	1.8	1.0	1-3	3	3.3	1.2	2-4	5	3.2	1.5	1-5	4	3.5	0.6	3-4	5	4.2	1.8	1-5
1937	4	3.5	2.4	1-6	2	3.5	0.7	3-4	4	4.3	2.5	1-7	4	4.3	2.2	2-7	5	7.8	1.5	6-10
1938	1	2	-	2	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
Yrs	4	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	13	-	-	-	9	-	-	-	13	-	-	-	13	-	-	-	14	-	-	-
MAX	4	3.5	-	6	4	3.5	-	4	5	4.3	-	7	5	4.3	-	7	5	7.8	-	10

	Taxa/Observation															
	June				July				August				September				October			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
1935	4	4.5	1.3	3-6	4	6.5	2.6	4-10	5	6.0	1.6	4-8	4	5.5	3.7	1-9	4	4.5	1.3	3-6
1936	4	4.0	2.4	2-7	3	6.7	1.2	6-8	4	4.5	3.1	1-8	4	7.0	2.2	4-9	7	5.7	1.8	3-8
1937	3	7.0	1.7	6-9	5	8.0	3.5	5-14	6	5.8	2.3	3-10	4	3.8	1.3	2-5	6	2.0	1.1	1-4
1938	1	6	-	6	1	7	-	7	1	9	-	9	0	-	-	-	0	-	-	-
Yrs	4	-	-	-	4	-	-	-	4	-	-	-	3	-	-	-	3	-	-	-
SUM	12	-	-	-	13	-	-	-	16	-	-	-	12	-	-	-	17	-	-	-
MAX	4	7.0	-	9	5	8.0	-	14	6	6.0	-	10	4	7.0	-	9	7	5.7	-	8

	Taxa/Observation								Total
	November				December				Observations/
Yr	N	Mean	SD	Range	N	Mean	SD	Range	Year
1935	3	3.0	1.0	2-4	5	2.2	0.4	2-3	50
1936	4	4.0	2.2	2-7	4	2.5	0.6	2-3	51
1937	4	1.5	1.0	1-3	2	3.0	0	3	49
1938	0	-	-	-	0	-	-	-	4
Yrs	3	-	-	-	3	-	-	-	4
SUM	11	-	-	-	11	-	-	-	154
MAX	4	4.0	-	7	5	3.0	-	3	51

Table 2.3. Number of observations and number of taxa/observation in 1959-1964 at the 1400-1500 ft Station on Saddle Bag Mountain. Goose spp. and swift spp. are each counted as one taxon, but other taxa not identified to species are not included.

Codes:
N=number of Observations/Month
SD=Standard Deviation
-=not applicable
Yrs=number of years with at least one observation
MAX=maximum (maximum of Means given only if N is two or more.

	Taxa/Observation														
	January				February				March				April				May			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
1959	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
1960	3	1.3	0.6	1-2	2	1.0	0	1	2	3.5	0.7	3-4	3	3.7	2.3	1-5	3	2.3	1.5	1-4
1961	3	1.3	0.6	1-2	0	-	-	-	1	1	-	1	3	3.3	2.5	1-6	2	10.5	0.7	10-11
1962	0	-	-	-	0	-	-	-	1	1	-	1	3	2.7	0.6	2-3	1	6	-	6
1963	1	1	-	1	0	-	-	-	0	-	-	-	0	-	-	-	0	-	-	-
1964	2	1.5	0.7	1-2	1	2	-	2	0	-	-	-	1	5	-	5	0	-	-	-
Yrs	4	-	-	-	2	-	-	-	3	-	-	-	4	-	-	-	3	-	-	-
SUM	9	-	-	-	3	-	-	-	4	-	-	-	10	-	-	-	6	-	-	-
MAX	3	1.5	-	2	2	1.0	-	2	2	3.5	-	4	3	3.7	-	6	3	10.5	-	11

	Taxa/Observation																			
	June				July				August				September				October			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
1959	0	-	-	-	4	5.3	1.9	4-8	5	7.4	2.7	3-10	4	5.8	4.6	1-12	5	3.8	1.5	2-6
1960	4	8.8	2.6	5-11	5	7.2	1.9	4-9	4	8.0	1.4	7-10	5	3.0	1.9	1-5	3	2.0	1.7	1-4
1961	5	5.6	1.5	4-8	4	7.8	1.5	6-9	4	7.0	1.6	5-9	5	5.6	2.4	3-9	2	5.0	2.8	3-7
1962	3	4.0	1.0	3-5	2	4.5	0.7	4-5	2	4.0	1.4	3-5	1	1	-	1	1	1	-	1
1963	0	-	-	-	3	5.0	2.0	3-7	1	2	-	2	1	2	-	2	0	-	-	-
1964	0	-	-	-	6	4.0	2.5	1-8	3	1.0	0	1	0	-	-	-	1	5	-	5
Yrs	3	-	-	-	6	-	-	-	6	-	-	-	5	-	-	-	5	-	-	-
SUM	12	-	-	-	24	-	-	-	19	-	-	-	16	-	-	-	12	-	-	-
MAX	5	8.8	-	11	6	7.8	-	9	5	8.0	-	10	5	5.8	-	12	5	5.0	-	7

	Taxa/Observation								Total Observations/ Year
	November				December				
Yr	N	Mean	SD	Range	N	Mean	SD	Range	
1959	5	2.2	1.6	1-5	2	2.5	0.7	2-3	25
1960	2	1.5	0.7	1-2	1	1	-	1	37
1961	1	1	-	1	1	1	-	1	31
1962	1	2	-	2	0	-	-	-	15
1963	0	-	-	-	0	-	-	-	6
1964	0	-	-	-	0	-	-	-	14
Yrs	4	-	-	-	3	-	-	-	6
SUM	9	-	-	-	4	-	-	-	128
MAX	5	2.2	-	5	2	2.5	-	3	37

Table 2.4. Total bird taxa recorded each month and year at the 1400-1500 ft Station on Saddle Bag Mountain. These data are calculated from Tables 2.2 and 2.3 and section 2-H. Goose spp. and swift spp. are each included, but not other taxa that were not identified to species.

Codes:

*=TOE month based on section 2-D and Tables 2.2 and 2.3

Record=one bird taxon seen or heard during one Observation

Monthly Records (calculated from Tables 2.2 and 2.3)=(number of Observations) X (Mean Taxa/Obs.), rounded to the nearest whole number

Total Records=sum of Monthly Records

Total Taxa=total number of taxa recorded each year

Records/Taxon=Total Records for year divided by the total number of taxa noted that year

Records/Obs.=Total Records for year divided by the number of Observations that year from Tables 2.2 and 2.3

.=zero ("." is used to enhance readability)

MAX=maximum

#Taxa=total number of taxa recorded during all of 1935-1938 or 1959-1964, respectively.

1935-1938	Taxa/Month.....												Total	Total	Records per...	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Records@	Taxa	Taxon	Obs.
1935	5	5	3	7	9*	11*	12*	17*	10*	9*	4	4	201@	22	9.1	4.0
1936	4	5	7	5	8	11*	10	8	12*	12*	7	3	216@	18	12.0	4.2
1937	9*	5	8*	8*	14*	11*	17*	9	7	6	4	4	229@	23	10.0	4.7
1938	3	0	0	0	0	6	6	8	0	0	0	0	24@	12	2.0	6.0
MAX	9	5	8	8	14	11	17	17	12	12	7	4	229	23	12.0	6.0
60% of MAX	5.4	3.0	4.8	4.8	8.4	6.6	10.2	10.2	7.2	7.2	4.2	2.4	137.4	13.8	-	-
yrs of 60%	1	3	2	3	2	3	2	1	2	2	1	3	3	3	-	-
yrs of TOE	1	0	1	1	2	3	2	1	2	2	0	0	-	-	-	-
#Taxa	12	9	8	11	18	18	19	20	15	13	9	7	-	31	-	-
MAX/#Taxa	0.8	0.6	1.0	0.7	0.8	0.6	0.9	0.9	0.8	0.9	0.8	0.6	-	0.7	-	-

1959-1964	Taxa/Month.....												Total	Total	Records per...	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Records@	Taxa	Taxon	Obs.
1959	0	0	0	0	0	0	13*	15*	15*	7	7	5	116@	23	5.0	4.6
1960	3	2	6	7	5	15*	16*	17*	10*	4	2	1	159@	23	6.9	4.3
1961	0	2	1	6	14*	12*	14*	13*	14*	8*	1	1	163@	25	6.5	5.3
1962	0	0	1	7	6	7	7	7	1	1	2	0	48@	18	2.7	3.2
1963	1	0	0	0	0	0	9	2	2	0	0	0	20@	11	1.8	3.3
1964	2	2	0	5	0	0	14*	8	0	4	0	0	42@	20	2.1	3.0
MAX	3	2	6	7	14	15	16	17	15	8	7	5	163	25	6.9	5.3
60% of MAX	1.8	1.2	3.6	4.2	8.4	9.0	9.6	10.2	9.0	4.8	4.2	3.0	97.8	15.0	-	-
yrs of 60%	2	3	1	4	1	2	4	3	3	2	1	1	3	5	-	-
yrs of TOE	0	0	0	0	1	2	4	3	3	1	0	0	-	-	-	-
#Taxa	5	5	8	12	15	17	25	25	18	13	8	5	-	35	-	-
MAX/#Taxa	0.6	0.4	0.8	0.6	0.9	0.9	0.6	0.7	0.8	0.6	0.9	1.0	-	0.7	-	-

@ There were a total of 670 Records in 1935-1938 and 548 Records in 1959-1964; the grand total is 1,218 Records.

Table 2.5. Number and regularity of bird taxa at the Station on Saddle Bag Mountain for selected years. These data are calculated from section 2-H only for 1935-1937 and 1959-1962 and 1964 because they had 60% or more of the maximum number of taxa recorded during either 1935-1938 and 1959-1964 in Table 2.4.

Waterbirds=aquatic taxa (e.g., members of heron family, goose spp., waterfowl, rails, shorebirds, gulls, Belted Kingfisher, and American Dipper).

Terrestrial birds=nonaquatic species, including swift spp. but not chickadee spp. or kinglet spp.

Other Years=number of taxa only found in years with less than 60% of the yearly maximum number of taxa (i.e., 1932-1934 and 1938-1941 for the 1935-1937 interval and 1963 during the 1959-1964 interval).

1935-1937.....

No. of Years with 60% or more of MAX	Waterbirds..... No. of Taxa	% of Total	Terrestrial Birds No. of Taxa	% of Total
1	1	100.0	9	30.0
2	0	0.0	5	16.7
3	0	0.0	16	53.3
Sum	1	100.0	30	100.0
Other Years	0	-	0	-

1959-1962 & 1964.....

No. of Years with 60% or more of MAX	Waterbirds..... No. of Taxa	% of Total	Terrestrial Birds No. of Taxa	% of Total
1	1	50.0	7	21.2
2	1	50.0	6	18.2
3	0	0.0	6	18.2
4	0	0.0	5	15.2
5	0	0.0	9	27.2
Sum	2	100.0	33	100.0
Other Years (1963)	0	-	0	-

Table 2.6 Marked changes in bird presence at the Station between 1935-1937 in an old-growth forest and 1959-1964 in a young forest; the Station was logged in 1939-1940 (Macnab 1958:24). Note that Bayer may have missed subtle changes in bird presence.

Section=section where the taxon's monthly presence is noted.

Increased=birds more commonly seen or heard about 20 years after logging in a young forest.

Declined=birds more commonly seen or heard in old-growth forest.

Bird Taxon	Section	Post-logging Change to a Young Forest
Turkey Vulture	2-H-7	increased
Common Nighthawk	2-H-14	increased
swift spp.	2-H-15	increased
Rufous Hummingbird	2-H-16	increased
Olive-sided Flycatcher	2-H-23	increased
American Crow	2-H-29	increased
Common Raven	2-H-30	declined
Red-breasted Nuthatch	2-H-32	declined
Brown Creeper	2-H-33	declined
Swainson's Thrush	2-H-36	increased
American Robin	2-H-37	increased
Varied Thrush	2-H-38	declined
Wrentit	2-H-39	increased
Hermit Warbler	2-H-41	declined
Wilson's Warbler	2-H-42	increased
Western Tanager	2-H-43	increased
Pine Siskin	2-H-49	declined

Total: 11 Taxa Increased (i.e., they were more frequent in a young forest)
6 Taxa Declined (i.e., they were more frequent in an old-growth forest)

2-H. TAXA ACCOUNTS

2-H-1. YEARS WITHOUT RECORDS

A year may be listed for a taxon even though the taxon was not recorded. Years without records are designated by having "No Records" in the First and Last columns. This is done to make it clearer that a taxon was not found every year. Years of absence are given particularly for taxa that are present nearly every year.

2-H-2. FIRST AND LAST DATES

These are the first and last dates, respectively, that a taxon was recorded. Note that a taxon may have been present before a First or after a Last date (Faxon and Bayer 1991:29-31). A First or Last date is only listed if there appear to be enough observations to somewhat accurately determine the date.

-=not possible to assign a First or Last date because the bird taxon was present continually or erratically throughout the year, because observation effort may have been inadequate to determine the First or Last date reasonably accurately, or because the date was not recorded.

2-H-3. AVERAGE FIRST AND LAST DATES

AV First=average (earliest date-latest date)
AV Last=average (earliest date-latest date)

AV First, AV Last=Averages (AV) are only calculated for taxa with at least three years of First or Last dates and in which an average appears appropriate. For some taxa, the range in First or Last dates is so great that an average doesn't appear meaningful and is not calculated.

2-H-4. SEMIMONTHLY FREQUENCY

A.=taxon recorded in the first part (1-15th) of a month; it wasn't noted later that month.
.Z=taxon recorded from the 16th to the end of a month; it wasn't noted earlier that month.
AZ=taxon recorded during both portions (1-15th and 16th-end) of a month.
.=taxon not recorded in a TOE month (Table 2.4). Thus, the taxon was probably absent, but there is still a chance that it may have been overlooked. A "." is used instead of a "0" (zero) to enhance readability of when the taxon appears to have been absent.
?=taxon not recorded during a non-TOE month (Table 2.4). Thus, the apparent absence of the taxon may reflect inadequate observation effort, not the taxon's absence.

2-H-5. AVERAGE MONTHLY FREQUENCY

34-38, 35-38, or 59-64 MO. FREQ=average monthly frequency of occurrence of a taxon (see Bayer 1993:20) in 1934-1938, 1935-1938, and 1959-1964, respectively. 1934 data are only included for a few common taxa for which 1934 records were particularly noteworthy. The relative frequency is expressed by a ".", "+", "X", or "?", depending on the presence or absence of a taxon and the adequacy of observation effort.

+=taxon recorded in only one year.

X=taxon recorded in two or more years.

.=taxon was not recorded during any non-TOE or TOE months, although there were three or more months with TOE. A "." is used instead of a "0" to enhance readability of when a species appears to have been absent.

?=taxon not recorded in any year, but there were less than three TOE months (Table 2.4), so observation effort was considered inadequate to determine if the taxon was absent or may have been present but not recorded (e.g., Bayer 1993:14-16).

2-H-6. GOOSE SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	08/25	08/25	?	?	?	?	.	.	.	.Z	.	.	?	?
35-38	MO.	FREQ	?	?	?	?	?	.	?	+	?	?	?	?
60	04/30	05/06	?	?	?	.Z	A.	.	.	.	.	?	?	?
61	-	05/05	?	?	?	?	A.	.	.	.	.	.	?	?
59-64	MO.	FREQ	?	?	?	+	X	?	.	.	.	?	?	?

Geese (800-900 in 1960) were sometimes heard flying over in spring and fall.

2-H-7. TURKEY VULTURE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	09/26	?	?	?	?	?	?	.Z	.Z	AZ	?	?	?.
60	-	09/08	?	?	?	?	?	.	AZ	.Z	A.	?	?	?
61	05/13	09/09	?	?	?	?	A.	.	.	.Z	A.	.	?	?
62	No	Records	?	?	?	?	?	?	?	?	?	?	?	?
63	No	Records	?	?	?	?	?	?	?	?	?	?	?	?
64	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	+	?	X	X	X	?	?	?

AV Last=9/14 (9/8-9/26)

They were only seen after logging.

2-H-8. BALD EAGLE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.	.	.	.Z	.Z	.	?	?
35-38	MO.	FREQ	?	?	?	?	?	.	?	+	+	?	?	?

Single eagles were heard.

2-H-9. SHARP-SHINNED HAWK

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.	?	.	.	.	.Z	.Z	?	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	?	+	+	?	?	?	?	?

2-H-10. RED-TAILED HAWK

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.	.	.	.Z	.	.	?	?
35-38	MO.	FREQ	?	?	?	?	?	.	?	+	?	?	?	?
60	-	-	?	?	?	?	?	.	A.	.	.	?	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	+	.	.	?	?	?

2-H-11. BAND-TAILED PIGEON

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/04	10/20	?	?	?	?	A.	.Z	AZ	AZ	A.	.Z	?	?
36	-	-	?	?	?	?	?	A.	?	.Z	.	.	?	?
37	05/29	-	.	?	.	.	.Z	.Z	AZ	?	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	X	X	X	X	+	+	?	?
59	-	09/26	?	?	?	?	?	?	AZ	AZ	AZ	?	?	?
60	05/14	10/05	?	?	?	?	A.	AZ	AZ	AZ	AZ	A.	?	?
61	05/13	10/13	?	?	?	?	AZ	AZ	A.	AZ	AZ	A.	?	?
62	-	-	?	?	?	?	?	?	AZ	AZ	?	?	?	?
63	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
64	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	X	X	X	X	X	X	?	?

AV First=5/15 (5/4-5/29) AV Last=10/9 (9/26-10/20)

2-H-12. GREAT HORNED OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	A.	?	.	.	.	.	.	?	?	?	?	?
35-38	MO.	FREQ	+	?	?	?	?	.	?	?	?	?	?	?

2-H-13. NORTHERN PYGMY-OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.	.	.Z	.	.	.	?	?
36	-	-	?	?	?	?	?	.	?	.Z	.	.	?	?
37	-	-	.	?	.	.	.	.	.Z	A.	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	?	.	X	X	?	?	?	?

2-H-14. COMMON NIGHTHAWK

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	AZ	A.	.	?	?	?
60	06/18	08/20	?	?	?	?	?	.Z	A.	AZ	.	?	?	?
61	06/17	09/12	?	?	?	?	.	.Z	AZ	AZ	A.	.	?	?
62	No	Records	?	?	?	?	?	?	?	?	?	?	?	?
63	-	-	?	?	?	?	?	?	AZ	?	?	?	?	?
64	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	?	X	X	X	+	?	?	?

Although this bird may have been missed in the 1930's because it may have flown above the forest canopy, it is more likely that it was only at this site after logging.

In the summer of 1959, two nests were found.

2-H-15. SWIFT SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	09/12	?	?	?	?	?	?	.	A.	A.	?	?	?
60	05/14	-	?	?	?	?	A.	.Z	.	.	.	?	?	?
61	-	09/09	?	?	?	?	.	A.	.	.	A.	.	?	?
59-64 MO. FREQ			?	?	?	?	+	X	.	+	X	?	?	?

Most, if not all, of these sightings were probably of Vaux's Swifts, but there is a chance that some may have been Black Swifts.

They may not have been seen in the 1930's because they were not visible above the forest canopy.

2-H-16. RUFOUS HUMMINGBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	04/06	-	?	?	?	A.	.	.	.	.	.	.	?	?
36	No Records		?	?	?	?	?	.	?	?	.	.	?	?
37	-	07/21	.	?	.	.	.	.	.Z	?	?	?	?	?
35-38 MO. FREQ			?	?	?	+	?	.	+	?	?	?	?	?
59	-	08/01	?	?	?	?	?	?	.	A.	.	?	?	?
60	04/07	08/06	?	?	?	AZ	?	AZ	AZ	A.	.	?	?	?
61	04/05	07/28	?	?	?	A.	AZ	AZ	.Z	.	.	.	?	?
62	-	-	?	?	?	?	?	.Z	?	?	?	?	?	?
63	-	-	?	?	?	?	?	?	.Z	?	?	?	?	?
64	04/03	-	?	?	?	A.	?	?	.	?	?	?	?	?
59-64 MO. FREQ			?	?	?	X	+	X	X	X	?	?	?	?

AV First=4/5 (4/3-4/7) AV Last=7/30 (7/21-8/6)

Hummingbirds were uncommon in the old-growth forest and appear to have only been rare spring and fall migrants there.

2-H-17. BELTED KINGFISHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
64	-	-	?	.Z	?	?	?	?	.	?	?	?	?	?
59-64 MO. FREQ			?	+	?	?	?	?	.	.	.	?	?	?

2-H-18. RED-BREASTED SAPSUCKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
60	-	-	?	?	.Z	?	?	.	.	.	.	?	.Z	?
59-64 MO. FREQ			?	?	+	?	?	?	.	.	.	?	+	?

2-H-19. DOWNY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	?	.	?	?	A.	.	?	?
35-38 MO. FREQ			?	?	?	?	?	.	?	?	+	?	?	?
59	-	-	?	?	?	?	?	?	.	.	.	?	A.	?
60	No Records		?	?	?	?	?	.	.	.	.	?	?	?
61	-	-	?	?	?	?	.	.	A.	.	AZ	.	?	?
62	-	-	?	?	?	A.	?	?	?	?	?	?	?	?
63	No Records		?	?	?	?	?	?	?	?	?	?	?	?
64	No Records		?	?	?	?	?	?	.	?	?	?	?	?
59-64 MO. FREQ			?	?	?	+	?	?	+	.	+	?	+	?

2-H-20. HAIRY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	AZ	?	A.	.	A.	.Z	.Z	AZ	AZ	?	.Z
36	-	-	?	?	AZ	?	?	A.	?	?	.Z	.Z	AZ	?
37	-	-	.Z	?	A.	A.	AZ	AZ	AZ	?	?	?	?	AZ
38	-	-	A.	?	?	?	?	?	?	.Z	?	?	?	?
35-38 MO. FREQ			X	+	X	X	+	X	X	X	X	X	+	X
60	-	-	?	?	?	?	?	.Z	.Z	A.	.	?	?	?
61	-	-	?	?	?	?	.	.	.	AZ	.	.	?	?
59-64 MO. FREQ			?	?	?	?	?	+	+	X	.	?	?	?

2-H-21. NORTHERN FLICKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.Z	?	?	.	.	.	.	.	.	?	?
36	-	-	?	?	?	?	?	.	?	?	.Z	AZ	?	?
37	-	-	.	?	.	.	.	.	.	.Z	?	A.	?	?
35-38 MO. FREQ			?	+	?	?	?	.	?	+	+	X	?	?
59	-	-	?	?	?	?	?	?	.Z	AZ	A.	AZ	?	?
60	-	-	?	?	?	?	?	.	.	AZ	A.	?	?	?
61	-	-	?	?	?	A.	.	.	.Z	AZ	AZ	.	?	?
62	-	-	?	?	?	A.	A.	?	?	?	?	?	?	?
63	-	-	?	?	?	?	?	?	?	A.	?	?	?	?
64	-	-	?	.Z	?	A.	?	?	A.	.Z	?	?	?	?
59-64 MO. FREQ			?	+	?	X	+	?	X	X	X	+	?	?

In old-growth, they seemed to be a rare spring and a fairly common fall migrant.

2-H-22. PILEATED WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	.Z	?	AZ	?	?	.Z	?	?	?	?	?	?
35	-	-	.Z	?	?	.Z	.Z	A.	A.	.	.	A.	?	?
36	-	-	?	?	AZ	AZ	A.	.Z	?	?	.	.Z	.	?
37	-	-	.	?	A.	.Z	A.	.	.Z	?	AZ	?	?	?
34-38 MO. FREQ			X	?	X	X	X	X	X	?	+	X	?	?
59	-	-	?	?	?	?	?	?	.	.Z	AZ	AZ	A.	?
60	-	-	?	?	.Z	.Z	?	.Z	.Z	.Z	.Z	?	?	?
61	-	-	?	?	?	A.	A.	.	.Z	AZ	.Z	.	?	?
62	-	-	?	?	?	?	A.	?	AZ	?	?	?	?	?
63	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
59-64 MO. FREQ			?	?	+	X	X	+	X	X	X	+	+	?

One was collected on 25 September 1937.

For such a conspicuous bird they were uncommon in November-February, so they may be a migrant.

2-H-23. OLIVE-SIDED FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	08/08	?	?	?	?	?	?	.Z	A.	.	?	?	?
60	-	08/27	?	?	?	?	?	AZ	.Z	AZ	.	?	?	?
61	05/20	08/04	?	?	?	?	.Z	.Z	AZ	A.	.	.	?	?
62	-	08/10	?	?	?	?	?	AZ	.Z	A.	?	?	?	?
63	No Records		?	?	?	?	?	?	?	?	?	?	?	?
64	-	08/20	?	?	?	?	?	?	A.	.Z	?	?	?	?
59-64 MO. FREQ			?	?	?	?	+	X	X	X	.	?	?	?

AV Last=8/14 (8/4-8/27)

They were recorded only after logging.

2-H-24. WESTERN WOOD-PEWEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	.	.	.	.	.	.	?	?
36	-	-	?	?	?	?	?	.Z	.Z	?	.	.	?	?
37	-	-	.	?	.	.	.	.	.Z	?	?	?	?	?
35-38	MO. FREQ		?	?	?	?	?	+	X	?	?	?	?	?

2-H-25. PACIFIC-SLOPE FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	05/13	-	?	?	?	?	A.	.Z	AZ	?	.	.	?	?
35-38	MO. FREQ		?	?	?	?	+	+	+	?	?	?	?	?

2-H-26. VIOLET-GREEN SWALLOW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
64	-	-	?	?	?	?	?	?	.Z	A.	?	?	?	?
59-64	MO. FREQ		?	?	?	?	?	?	+	+	.	?	?	?

2-H-27. GRAY JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.	.Z	AZ	A.	AZ	.Z	?	?
36	-	-	?	?	?	?	?	.	?	?	AZ	.Z	?	?
37	-	-	.	?	AZ	.Z	AZ	.	AZ	.Z	AZ	AZ	.Z	A.
38	-	-	?	?	?	?	?	?	.Z	.Z	?	?	?	?
35-38	MO. FREQ		?	?	+	+	+	+	X	X	X	X	+	+
59	-	-	?	?	?	?	?	?	.	AZ	A.	?	?	?
60	-	-	?	?	.Z	?	.Z	A.	.Z	AZ	.Z	A.	?	?
61	-	-	?	?	?	?	AZ	.	.	.	.	.	?	?
62	No Records		?	?	?	?	?	?	?	?	?	?	?	?
63	No Records		?	?	?	?	?	?	?	?	?	?	?	?
64	-	-	?	?	?	?	?	?	AZ	?	?	?	?	?
59-64	MO. FREQ		?	?	+	?	X	+	X	X	X	+	?	?

They were most common in fall and were rare in November-February, so they may migrate.

2-H-28. STELLER'S JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	A.	?	?	?	?	?	?	AZ	.Z	?
35	-	-	?	?	?	?	.	.	A.	AZ	AZ	.	?	?
36	-	10/18	?	?	?	?	?	.	A.	?	AZ	AZ	?	?
37	-	-	.	?	.	.	A.	.Z	.Z	.Z	A.	?	?	?
38	-	-	?	?	?	?	?	?	.Z	.Z	?	?	?	?
34-38	MO. FREQ		?	?	+	?	+	+	X	X	X	X	+	?
59	-	10/03	?	?	?	?	?	?	AZ	AZ	A.	A.	?	?
60	-	-	?	?	?	.Z	AZ	AZ	.	AZ	AZ	?	?	?
61	-	-	?	?	?	A.	AZ	.Z	AZ	AZ	A.	A.	?	?
62	-	-	?	?	?	A.	?	?	A.	AZ	A.	?	?	?
63	-	-	?	?	?	?	?	?	?	?	.Z	?	?	?
64	-	-	?	?	?	?	?	?	A.	A.	?	A.	?	?
59-64	MO. FREQ		?	?	?	X	X	X	X	X	X	X	?	?

Since Steller's Jays are such a conspicuous bird that can hardly be missed and they are at least sometimes absent from November through March, they appear to be only summer residents at this site. The date of their arrival is unclear and appears to be somewhere in March to May. Their migration may be over very short distances as Reed Ferris found that they were winter residents at Beaver, Tillamook County (Bayer and Ferris 1987:89).

2-H-29. AMERICAN CROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	.Z	.	A.	?	?	A.
60	-	-	A.	?	?	?	?	.	.	.	.	?	?	?
61	-	-	?	AZ	?	?	.	.	.	.	.	.	?	?
59-64	MO. FREQ		+	+	?	?	?	?	+	.	+	?	?	+

They were only recorded after logging.

2-H-30. COMMON RAVEN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	AZ	AZ	AZ	AZ	AZ	.Z	AZ	AZ	AZ	AZ	AZ	AZ
36	-	-	AZ	A.	AZ	AZ	AZ	.Z	AZ	.Z	AZ	AZ	AZ	AZ
37	-	-	.Z	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
38	-	-	?	?	?	?	?	.Z	?	.Z	?	?	?	?
35-38	MO. FREQ		X	X	X	X	X	X	X	X	X	X	X	X
59	-	-	?	?	?	?	?	?	.	.	.	?	A.	?
62	-	-	?	?	.Z	?	?	?	?	?	?	?	?	?
64	-	-	A.	?	?	?	?	?	.	?	?	?	?	?
59-64	MO. FREQ		+	?	+	?	?	?	.	.	.	?	+	?

Ravens were much more common prior to logging.

2-H-31. CHICKADEE SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	AZ	AZ	?	AZ	AZ	.Z	AZ	AZ	AZ	AZ	.Z	A.
36	-	-	?	?	AZ	AZ	A.	A.	A.	AZ	AZ	AZ	AZ	.Z
37	-	-	AZ	.Z	AZ	AZ	AZ	AZ	AZ	AZ	A.	AZ	?	.Z
38	-	-	?	?	?	?	?	?	.Z	.Z	?	?	?	?
35-38	MO. FREQ		X	X	X	X	X	X	X	X	X	X	X	X

Most, if not all, of these records may have been Chestnut-backed Chickadees. Since these records were only identified as chickadees, it seems more accurate to simply list them as chickadees.

BLACK-CAPPED CHICKADEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	.	A.	A.	?	?	?
59-64	MO. FREQ		?	?	?	?	?	?	.	+	+	?	?	?

A few of the 1935-1938 chickadee spp. records may have been Black-capped Chickadees.

The lack of sightings may be because this species' preferred habitat (deciduous forest) was rare at this site.

CHESTNUT-BACKED CHICKADEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	?	.Z	?	?	?	?
36	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
37	-	-	?	?	?	A.	?	.Z	.Z	.Z	?	?	?	?
38	-	-	?	?	?	?	?	?	.Z	.Z	?	?	?	?
35-38	MO. FREQ		?	?	?	+	?	X	X	X	?	?	?	?
59	No Records		?	?	?	?	?	?	.	.	.	?	?	?
60	-	08/27	?	?	?	?	?	.	AZ	.Z	.	?	?	?
61	-	10/06	?	?	?	?	.	.	.Z	.	.	A.	?	?
62	-	-	?	?	?	?	?	.Z	?	?	?	?	?	?
63	No Records		?	?	?	?	?	?	?	?	?	?	?	?
64	-	10/07	?	?	?	?	?	?	AZ	AZ	?	A.	?	?
59-64	MO. FREQ		?	?	?	?	?	+	X	X	.	X	?	?

Most, if not all, of the 1935-1938 chickadee

spp. records were probably Chestnut-backed Chickadees, so months when chickadee spp. were recorded, but not Chestnut-backeds, are indicated by a "?".

One was collected on 4 April 1937.

2-H-32. RED-BREASTED NUTHATCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	.Z	AZ	?	?	.Z	?	?	?	?	?	A.
35	04/27	-	?	?	?	.Z	AZ	AZ	A.	AZ	AZ	A.	.Z	AZ
36	-	-	AZ	A.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	?
37	-	08/26	.Z	.Z	AZ	AZ	AZ	AZ	.Z	AZ	?	?	?	?
38	-	-	?	?	?	?	?	.Z	.Z	.Z	?	?	?	?
34-38	MO.	FREQ	X	X	X	X	X	X	X	X	X	X	X	X
59	-	-	?	?	?	?	?	?	.	.	A.	?	?	?
61	-	-	?	?	?	?	.	.	.	A.	.	.	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	.	+	+	?	?	?

They were recorded only a few times after logging.

2-H-33. BROWN CREEPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.Z	?	?	.	.	.Z	.Z	AZ	.Z	?	?
36	-	-	.Z	A.	.Z	?	A.	.	.Z	AZ	.Z	AZ	A.	AZ
37	-	-	.	?	A.	.Z	AZ	.Z	.Z	AZ	AZ	.Z	?	.Z
38	-	-	A.	?	?	?	?	.Z	?	.Z	?	?	?	?
35-38	MO.	FREQ	X	X	X	X	X	X	X	X	X	X	+	X

After logging, the Brown Creeper was not recorded. They were most often noted in July through October.

2-H-34. WINTER WREN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	.Z	?	?	?	?	?	?	?	?	A.
35	-	-	AZ	.Z	AZ	AZ	AZ	AZ	AZ	.Z	.Z	.Z	A.	?
36	-	-	A.	A.	AZ	AZ	AZ	A.	.Z	.Z	AZ	.Z	AZ	?
37	-	-	.Z	?	AZ	.	.	.Z	AZ	AZ	?	?	.Z	?
38	-	-	?	?	?	?	?	.Z	?	?	?	?	?	?
34-38	MO.	FREQ	X	X	X	X	X	X	X	X	X	X	X	+
59	-	-	?	?	?	?	?	?	A.	.	.Z	AZ	AZ	.Z
60	-	-	AZ	.Z	.Z	.Z	?	AZ	.	.Z	.Z	A.	AZ	.Z
61	-	-	?	A.	?	AZ	AZ	AZ	AZ	A.	AZ	A.	?	?
62	-	-	?	?	?	A.	?	.Z	A.	?	?	?	.Z	?
63	-	-	?	?	?	?	?	?	AZ	?	?	?	?	?
64	-	-	?	?	?	A.	?	?	A.	?	?	?	?	?
59-64	MO.	FREQ	+	X	+	X	+	X	X	X	X	X	X	X

2-H-35. KINGLET SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	AZ	AZ	AZ	A.	.	.	A.	.	.	?	AZ
36	-	-	?	?	A.	?	?	.	?	AZ	.Z	AZ	AZ	AZ
37	-	-	.Z	A.	AZ	.	A.	.	.	AZ	.Z	AZ	AZ	AZ
38	-	-	A.	?	?	?	?	?	?	?	?	?	?	?
35-38	MO.	FREQ	X	X	X	+	X	.	?	X	X	X	X	X

Most, if not all, of these records may have been Golden-crowned Kinglets. Since these records were only identified as kinglets, it is most accurate to simply list them as kinglets.

GOLDEN-CROWNED KINGLET

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	?	?	?	?	.	.	?	.	.	?	A.
36	No	Records	?	?	?	?	?	.	?	?	?	?	?	?
37	-	-	?	?	?	.	?	.	.	.Z	?	?	?	?
35-38	MO.	FREQ	+	?	?	?	?	.	?	+	?	?	?	+
59	-	-	?	?	?	?	?	?	.	.	AZ	AZ	A.	.Z
60	-	-	.Z	?	.Z	?	?	.Z	.	.Z	.	?	?	?
61	-	-	?	?	?	A.	AZ	AZ	.	.	AZ	A.	?	.Z
62	-	-	?	?	?	?	A.	.Z	.Z	?	?	.Z	.Z	?
63	-	-	A.	?	?	?	?	?	A.	?	?	?	?	?
64	-	-	?	?	?	A.	?	?	.	?	?	A.	?	?
59-64	MO.	FREQ	X	?	+	X	X	X	X	+	X	X	X	X

One was collected on 19 January 1935.

Most, if not all, of the 1935-1938 kinglet spp. records were probably Golden-crowned Kinglets, so months when kinglet spp. were recorded, but not Golden-crowneds, are indicated by a "?".

RUBY-CROWNED KINGLET

A few of the 1935-1938 kinglet spp. records may have been Ruby-crowned Kinglets.

2-H-36. SWAINSON'S THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	06/11	08/21	?	?	?	?	.	AZ	AZ	.Z	.	.	?	?
36	No	Records	?	?	?	?	?	.	?	?	.	.	?	?
37	-	-	.	?	.	.	.	.	.Z	?	?	?	?	?
38	-	-	?	?	?	?	?	?	.Z	?	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	?	+	X	+	?	?	?	?
59	-	09/19	?	?	?	?	?	?	A.	A.	.Z	?	?	?
60	06/02	09/03	?	?	?	?	?	AZ	AZ	AZ	A.	?	?	?
61	05/20	-	?	?	?	?	.Z	AZ	AZ	A.	.	.	?	?
62	06/01	-	?	?	?	?	?	AZ	A.	?	?	?	?	?
63	-	-	?	?	?	?	?	?	AZ	?	?	?	?	?
64	-	-	?	?	?	?	?	?	A.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	+	X	X	X	X	?	?	?

AV First=6/1 (5/20-6/11) AV Last=9/4 (8/21-9/19)

This thrush appears to have become more common after logging.

2-H-37. AMERICAN ROBIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.	?	.	.	A.	.	.	?	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	+	.	?	?	?	?	?	?
59	No	Records	?	?	?	?	?	?	.	.	.	?	?	?
60	-	-	?	A.	?	?	?	.	.Z	A.	A.	?	?	?
61	-	-	?	?	.Z	?	.	.	.	AZ	A.	A.	?	?
62	-	-	?	?	?	A.	?	?	?	?	?	?	?	?
63	No	Records	?	?	?	?	?	?	?	?	?	?	?	?
64	-	-	?	?	?	A.	?	?	AZ	A.	?	?	?	?
59-64	MO.	FREQ	?	+	+	X	?	?	X	X	X	+	?	?

Robins became much more common after logging.

2-H-38. VARIED THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	.Z	A.	.Z	?	.Z	.Z	?	?	.Z	?	A.
35	-	-	AZ	?	?	AZ	AZ	AZ	AZ	AZ	AZ	A.	.Z	?
36	-	-	?	?	?	A.	AZ	A.	AZ	.Z	.Z	AZ	?	?
37	-	-	A.	.Z	.	.Z	AZ	AZ	AZ	?	.Z	.Z	?	?
38	-	-	?	?	?	?	?	A.	?	?	?	?	?	?
34-38	MO.	FREQ	X	X	+	X	X	X	X	X	X	X	+	+

Varied Thrushes were not recorded after logging.

2-H-39. WRENTIT

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	.Z	AZ	A.	AZ	AZ	?
60	-	-	?	?	.Z	.Z	?	AZ	AZ	AZ	A.	A.	?	?
61	-	-	?	?	?	?	AZ	A.	AZ	AZ	A.	.	?	?
62	-	-	?	?	?	A.	A.	AZ	?	A.	?	?	?	?
63	-	-	?	?	?	?	?	?	A.	A.	.Z	?	?	?
64	-	-	A.	?	?	?	?	?	A.	?	?	A.	?	?
59-64	MO.	FREQ	+	?	+	X	X	X	X	X	X	X	+	?

None were reported before logging.

2-H-40. CEDAR WAXWING

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	A.	.Z	.	?	?	?
61	-	-	?	?	?	?	.	.	.	.	.	A.	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	+	+	.	+	?	?

None were seen before logging, and it was infrequently noted afterwards.

2-H-41. HERMIT WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	08/21	?	?	?	?	.	.Z	.	.Z	.	.	?	?
36	05/10	07/13	?	?	?	?	A.	.Z	A.	?	.	.	?	?
37	05/20	07/22	.	?	.	.	.Z	AZ	AZ	?	?	?	?	?
38	-	07/19	?	?	?	?	?	?	.Z	?	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	X	X	X	+	?	?	?	?

AV Last=7/27 (7/13-8/21)

None were recorded after logging.

2-H-42. WILSON'S WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.Z	.Z	.	.	.	.	?	?
35-38	MO.	FREQ	?	?	?	?	+	+	?	?	?	?	?	?
59	-	-	?	?	?	?	?	?	AZ	.	.	?	?	?
60	04/22	08/27	?	?	?	.Z	?	AZ	AZ	AZ	.	?	?	?
61	05/13	-	?	?	?	?	AZ	AZ	AZ	.	.	.	?	?
62	-	08/10	?	?	?	?	?	?	?	A.	?	?	?	?
63	-	-	?	?	?	?	?	?	AZ	?	?	?	?	?
64	No	Records	?	?	?	?	?	?	.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	+	+	X	X	X	.	?	?	?

They appear to have become more common after logging.

2-H-43. WESTERN TANAGER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
59	-	-	?	?	?	?	?	?	.Z	.	.	?	?	?
60	-	-	?	?	?	?	?	.	.Z	.	.	?	?	?
61	05/20	-	?	?	?	?	.Z	.Z	.	.	.	.	?	?
62	05/03	-	?	?	?	?	A.	A.	?	?	?	?	?	?
63	No	Records	?	?	?	?	?	?	?	?	?	?	?	?
64	No	Records	?	?	?	?	?	?	.	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	X	X	X	.	.	?	?	?

They were only seen after logging.

2-H-44. FOX SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
62	-	04/15	?	?	?	A.	?	?	?	?	?	?	?	?
59-64	MO.	FREQ	?	?	?	+	?	?	.	.	.	?	?	?

2-H-45. SONG SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.Z	.	.	.	.	.	?	?
36	-	-	?	?	?	?	?	.	?	?	.	.	A.	?
37	-	-	.Z	?	.	.	.	.	.	?	?	?	?	?
35-38	MO.	FREQ	+	?	?	?	+	.	?	?	?	?	+	?
60	-	-	?	?	?	?	?	.	.	.	.	A.	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	.	.	.	+	?	?

2-H-46. DARK-EYED (Oregon) JUNCO

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No	Records	?	?	?	?	.	.	.	.	.	.	?	?
36	-	-	?	?	?	?	?	.	?	?	.Z	.Z	?	?
37	-	-	.Z	A.	.	.	A.	.	.	?	?	?	?	?
35-38	MO.	FREQ	+	+	?	?	+	.	?	?	+	+	?	?
61	-	-	?	?	?	?	.	.	.	.	.	.	.Z	?
64	-	-	?	?	?	?	?	?	AZ	A.	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	+	+	.	?	+	?

On 25 October 1936, one was collected. Its feet were pinkish-gray, its legs were pink, its bill was pinkish-white with a black tip, and its iris was black.

On 24 January 1937, two were shot. In at least one of them, the iris was brown, the tarsi were pink, the digits were pinkish-gray, and the bill was pinkish-white.

2-H-47. RED-WINGED BLACKBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
64	-	-	?	?	?	?	?	?	.	A.	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	?	?	.	+	.	?	?	?

2-H-48. RED CROSSBILL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	AZ	?	A.	.	.Z	AZ	.	.	?	A.
36	-	-	?	A.	A.	?	?	A.	AZ	AZ	AZ	AZ	AZ	AZ
37	-	-	.Z	AZ	AZ	AZ	AZ	AZ	.Z	AZ	A.	AZ	AZ	?
38	-	-	A.	?	?	?	?	.Z	.Z	.Z	?	?	?	?
35-38	MO.	FREQ	X	X	X	+	X	X	X	X	X	X	X	X
59	-	-	?	?	?	?	?	?	.	AZ	.Z	A.	.Z	A.
60	06/10	-	?	?	?	?	?	AZ	A.	.	.	?	?	?
61	07/14	-	?	?	?	?	.	.	AZ	AZ	AZ	A.	?	?
62	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
59-64	MO.	FREQ	?	?	?	?	?	+	X	X	X	X	+	+

Two were collected on 9 August 1936 and also on 19 July 1938.

2-H-49. PINE SISKIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.	.	.	.Z	.	.	?	?
36	No	Records	?	?	?	?	?	.	?	?	.	.	?	?
37	-	-	.	?	.	.	A.	.	.	?	?	?	?	?
38	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
35-38	MO.	FREQ	?	?	?	?	+	.	?	X	?	?	?	?

It was not reported after logging.

One was collected on 21 August 1938.

Chap. 3. RECORDS ALONG TRAIL M AT 1,400-2,400 FT IN LINCOLN COUNTY BY MACNAB, DIRKS-EDMUNDS, AND OTHERS

3-A. INTRODUCTION

Location: T6S, R9W, Sections 25, 26, and 35
Area Studied: ?
Habitat(s): Old-growth Coniferous Forest
Elevation: 1,400-2,400 ft (427-731 m)
Distance to Coastline: 12.5 mi (20.3 km).

These observations by Macnab, Dirks-Edmunds, McKey-Fender, and others were along parts or all of what Bayer (not they) have called Trail M in Fig. 2.1. According to Dirks-Edmunds (1947:238) and Macnab (1958:24), this whole area was similarly vegetated, so Bayer has assumed that this Trail was Old-growth Coniferous Forest, like their primary study area, the Station (Chap. 2).

Their methods were probably similar to those at the Station (section 2-C). The few observations here (Table 3.1) have the same shortcomings as the Station's (section 2-E), although observations here were probably less systematic than at the Station.

Since there were so few observations (Table 3.1), these records are best judged as presence, not presence/absence data.

3-B. CURSORY RESULTS

Although there are few observations, they are intriguing because it appears that Gray and Steller's jays and Varied Thrushes are absent here in January and February (Table 3.1).

3-C. TABLE

Table 3.1. Bird records along part or all of Trail M on Saddle Bag Mountain (see Fig. 2.1). P=present (i.e., species was recorded on date indicated), .=species not present on date indicated (but it may have been missed). TOTAL SPECIES does not include chickadee spp. and kinglet spp.

	Observation Date.....						
	1936.....			1937.....			
Taxon	10/10	10/17	10/18	1/17	2/20	7/21	10/9
Band-tailed Pigeon	.	.	P	.	.	P	.
Great Horned Owl	.	.	P	.	.	.	.
Hairy Woodpecker	.	.	.	.	P	.	.
Gray Jay	.	P	.	.	.	P	P
Steller's Jay	P	P	P	.	.	P	.
Common Raven	.	.	.	.	P	.	P
chickadee spp. *	P	P	.	P	.	.	P
Chestnut-backed Chickadee	?	P	.	?	.	.	?
Red-breasted Nuthatch	.	P	.	.	.	P	P
Brown Creeper	P@	.	.	P	P	.	.
Winter Wren	.	.	P	.	P	P	P
kinglet spp. @@	P	P	P	P	.	.	P
Varied Thrush	P	P	P	.	.	P	P
Hermit Warbler	.	.	.	.	.	P	.
Song Sparrow	.	P	.	.	.	.	.
Dark-eyed (Oregon) Junco	P	.	P	P	.	.	.
Red Crossbill	.	P	.	P	P	.	.
Pine Siskin	.	.	.	.	P**	.	.
TOTAL SPECIES	4	7	6	3	6	7	5

* Most, if not all, may have been Chestnut-backed Chickadees.
** Over 500 Pine Siskins were seen feeding on seeds in top of a red cedar.
@ One was collected.
@@ Most, if not all, may have been Golden-crowned Kinglets.

Chap. 4. RECORDS ALONG TRAIL G AT 840-1,400 FT IN LINCOLN COUNTY BY MACNAB, DIRKS-EDMUNDS, AND OTHERS

4-A. INTRODUCTION

While hiking to their main study area, the Station, Macnab, Dirks-Edmunds, McKey-Fender, and others also made some incidental observations along Trail G (Fig. 2.1).

Bayer has chosen to mainly use their 1935-1937 records because they seemed to be the most comprehensive and consistent, but a few 1933 records that seemed to be particularly noteworthy are also included.

4-B. STUDY AREA AND METHODS

Location: T6S, R9W, Section 24
Area Studied: ?
Habitat(s): Old-growth Coniferous Forest
Elevation: 840-1,400 ft (256-427 m)
Distance to Coastline: about 13 mi (21 km).

In August 1988, Dirks-Edmunds wrote that the vegetation along this Trail in 1935-1937 was coniferous old-growth similar to that at the Station (section 2-B).

The methods of observation here were probably the same as for their other areas and are described in section 2-C. Note, however, that observations at Trail G were probably not as intensive as at their main study area, the Station. The number of observation days each month along Trail G is in Table 4.1.

4-C. TOLERABLE OBSERVATION EFFORT (TOE)

The term Tolerable Observation Effort (TOE) is used to emphasize that if certain criteria are attained, effort is judged Tolerable (i.e., moderately good or passable), so that observations can be considered as presence/absence data, not just as presence data (Bayer 1993:14-15). However, TOE does not indicate an effort in which all taxa present were recorded; TOE suggests only that effort was probably sufficient to find most, if not all, conspicuous, common taxa and, perhaps, some of the more inconspicuous or uncommon taxa (Bayer 1993:10-16).

Criteria for a TOE month are in section 2-D.

The observers often had months with three or more observations (Table 4.1), and there were many months that had 60% or more of the monthly maximum number of species (Table 4.2). Nevertheless, Bayer is leery of listing many of their months as representing TOE because so few species were usually noted per visit (Table 4.1) or per month (Table 4.2) and there are a number of shortcomings in their observations (section 4-D).

Bayer feels that it is better to be conservative in assigning TOE because it is better to error in interpreting a lack of records for a species as possibly representing low observation effort (i.e., a non-TOE month) rather than the species as being absent (i.e., a TOE month).

Because Bayer suspects that the observers were probably fairly consistent in their identifications (i.e., they probably consistently recorded some species and consistently missed others), he thinks that some of their months can be listed as TOE. Accordingly, Bayer partially follows criterion #2 with the additional requirement that there must also be at least eight taxa recorded during a month (Table 4.2). This is a judgment call, and, if the reader wishes to use less or more restrictive definitions in defining TOE, he or she can use Tables 4.1 and 4.2 and section 4-G to redefine TOE.

4-D. SHORTCOMINGS OF OBSERVATIONS

The observations here have the same shortcomings as those at the Station (section 2-E), and, in addition, observations at Trail G were probably less systematic than at their main study area, the Station (Chap. 2).

4-E. RESULTS AND DISCUSSION

A total of 26 species were found, with 18-21 found yearly (Table 4.2). Except for the American Dipper, all species were terrestrial with only 48% found each year (Table 4.3).

The range in the maximum number of species per month was 4-12, and the range in total species each month was 4-16 (Table 4.2). The yearly peak number of species was in May or June (Table 4.2), but observation effort also appears to be greatest in these months, so the yearly peak may reflect observation effort, not the actual peak in number of species present. May and June also had a higher number of total species than other months (Table 4.2), but, again, this may be a reflection of greater observation effort in these months.

****

4-F. TABLES

Table 4.1. Number of observations and number of taxa/observation at Trail G on Saddle Bag Mountain. There was one observation per day. Only taxa identified to species are included.

Codes:
N=number of Observations/Month
SD=Standard Deviation
-=not applicable
Yrs=number of years with at least one observation
MAX=maximum (maximum of Means given only if N is two or more.

	Taxa/Observation															
	January				February				March				April				May			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	0	-	-	-	0	-	-	-	4	1.8	1.5	1-4	5	2.4	1.5	1-4	4	3.3	0.5	3-4
36	3	1.3	0.6	1-2	2	1.5	0.7	1-2	5	2.0	1.0	1-3	4	2.8	1.0	2-4	5	4.2	1.9	1-6
37	5	2.4	0.5	2-3	4	2.3	1.3	1-4	4	2.3	1.3	1-4	4	3.3	1.9	2-6	5	5.0	1.6	3-7
Yrs	2	-	-	-	2	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	8	-	-	-	6	-	-	-	13	-	-	-	13	-	-	-	14	-	-	-
MAX	5	2.4	-	3	4	2.3	-	4	5	2.3	-	4	5	3.3	-	6	5	5.0	-	7

	Taxa/Observation															
	June				July				August				September				October			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	5	4.0	1.4	3-6	4	2.8	1.5	1-4	4	3.5	1.0	3-5	4	2.5	1.3	1-4	4	2.8	2.2	1-6
36	4	3.8	1.3	2-5	4	4.5	0.6	4-5	4	4.8	1.5	3-6	3	4.7	0.6	4-5	4	4.8	1.0	4-6
37	3	4.7	3.1	2-8	4	3.8	2.2	1-6	3	3.0	2.0	1-5	4	2.5	0.6	2-3	4	1.5	0.6	1-2
Yrs	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	12	-	-	-	12	-	-	-	11	-	-	-	11	-	-	-	12	-	-	-
MAX	5	4.7	-	8	4	4.5	-	6	4	4.8	-	6	4	4.7	-	5	4	4.8	-	6

	Taxa/Observation								Total
	November				December				Observations/
Yr	N	Mean	SD	Range	N	Mean	SD	Range	Year
35	4	2.8	1.7	1-5	4	1.3	0.5	1-2	42
36	4	2.5	1.3	1-4	4	4.0	2.0	3-7	46
37	4	1.5	0.6	1-2	2	2.0	1.4	1-3	46
Yrs	3	-	-	-	3	-	-	-	3
SUM	12	-	-	-	10	-	-	-	134
MAX	4	2.8	-	5	4	4.0	-	7	46

Table 4.2. Total bird taxa recorded each month and year at Trail G on Saddle Bag Mountain. These data are calculated from Table 4.1 and section 4-G. Only taxa identified to species are included.

Codes:
*=TOE month based on section 4-C and Table 4.1
Record=one bird taxon seen or heard during one Observation
Monthly Records (calculated from Table 4.1)= (number of Observations) X (Mean Taxa/Obs.), rounded to the nearest whole number
Total Records=sum of Monthly Records
Total Taxa=total number of taxa recorded each year
Records/Taxon=Total Records for year divided by the total number of taxa noted that year
Records/Obs.=Total Records for year divided by the number of Observations that year from Table 4.1
.=zero ("." is used to enhance readability)
MAX=maximum
#Taxa=total number of taxa recorded during all of 1935-37.

	Taxa/Month.....												Total	Total	Records per...	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Records@	Taxa	Taxon	Obs.
1935	0	0	4	6	7	10*	7	7	5	8*	6	3	114	18	6.3	2.7
1936	2	2	5	7	12*	10*	7	10*	7	8*	5	7	160	21	7.6	3.5
1937	6	4	4	7	11*	9*	7	7	4	3	2	4	132	18	7.3	2.9
MAX	6	4	5	7	12	10	7	10	7	8	6	7	160	21	7.6	3.5
60% of MAX	3.6	2.4	3.0	4.2	7.2	6.0	4.2	6.0	4.2	4.8	3.6	4.2	96.0	12.6	-	-
yrs of 60%	1	1	3	3	2	3	3	3	2	2	2	1	3	3	-	-
yrs of TOE	0	0	0	0	2	3	0	1	0	2	0	0	-	-	-	-
#Taxa	7	4	8	9	16	15	12	12	8	11	7	8	-	26	-	-
MAX/#Taxa	0.9	1.0	0.6	0.8	0.8	0.7	0.6	0.8	0.9	0.7	0.9	0.9	-	0.8	-	-

@ There were a grand total of 406 Records.

Table 4.3. Number and regularity of bird taxa at Trail G on Saddle Bag Mountain. These data are calculated from section 4-G only for 1935-1937; these years had 60% or more of the maximum number of taxa recorded in one year (MAX=21 taxa) in Table 4.2.

Waterbirds=aquatic taxa (e.g., members of heron family, waterfowl, rails, shorebirds, gulls, Belted Kingfisher, and American Dipper).

Terrestrial Birds=all other taxa, but chickadee spp. and kinglet spp. are not included.

Other Years=number of taxa found only in 1933, which had less than 60% of the yearly maximum number of taxa.

No. of Years with 60% or more of MAX	Waterbirds..... No. of Taxa	% of Total	Terrestrial Birds No. of Taxa	% of Total
1	1	100.0	9	36.0
2	0	0.0	4	16.0
3	0	0.0	12	48.0
Sum	1	100.0	25	100.0
Other Years (1933)	0	-	0	-

****

4-G. TAXA ACCOUNTS

4-G-1. YEARS WITHOUT RECORDS

A year may be listed for a taxon even though the taxon was not recorded. Years without records are designated by having "No Records" in the First and Last columns. This is done to make it clearer that a taxon was not found every year. Years of absence are given for taxa present two out of three years.

4-G-2. FIRST AND LAST DATES

These are the first and last dates, respectively, that a taxon was recorded. Note that a taxon may have been present before a First or after a Last date (Faxon and Bayer 1991:29-31). A First or Last date is only listed if there appear to be enough observations to somewhat accurately determine the date.

-=not possible to assign a First or Last date because the bird taxon was present continually or erratically throughout the year, because observation effort may have been inadequate to determine the First or Last date reasonably accurately, or because the date was not recorded.

4-G-3. SEMIMONTHLY FREQUENCY

A.=taxon recorded in the first part (1-15th) of a month; it wasn't noted later that month.

.Z=taxon recorded from the 16th to the end of a month; it wasn't noted earlier that month.

AZ=taxon recorded during both portions (1-15th and 16th-end) of a month.

.=taxon not recorded in a TOE month (Table 4.2). Thus, the taxon was probably absent, but there is still a chance that it may have been overlooked. A "." is used instead of a "0" (zero) to enhance readability of when the taxon appears to have been absent.

?=taxon not recorded during a non-TOE month (Table 4.2). Thus, the apparent absence of the taxon may reflect inadequate observation effort, not the taxon's absence.

4-G-4. AVERAGE MONTHLY FREQUENCY

AV MONTH. FREQ=average monthly frequency of occurrence of a taxon (see Bayer 1993:20) in 1935-1937. Some 1933 data are also included for a few taxa for which 1933 records were particularly noteworthy. The relative frequency is expressed by a ".", "+", "X", or "?", depending on the presence or absence of a taxon and the adequacy of observation effort.

+=taxon recorded in only one year.

X=taxon recorded in two or more years.

.=taxon was not recorded during any non-TOE or TOE months, although there were three or more months with TOE. The only month at Trail G with three years of TOE months was June. A "." is used instead of a "0" to enhance readability of when a species appears to have been absent.

?=taxon not recorded in any year, but there were less than three TOE months (Table 4.2), so observation effort was considered inadequate to determine if the taxon was absent or may have been present but not recorded (e.g., Bayer 1993:14-16).

4-G-5. BALD EAGLE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	07/24	07/24	?	?	?	?	?	.	.Z	?	?	.	?	?
AV MONTH. FREQ			?	?	?	?	?	.	+	?	?	?	?	?

One was once seen.

4-G-6. BLUE GROUSE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.	?	?	?	A.	?	?
AV MONTH. FREQ			?	?	?	?	?	.	?	?	?	+	?	?

4-G-7. BAND-TAILED PIGEON

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	?	.	?	?	?	.	?	?
36	-	-	?	?	?	?	.	.	?	A.	?	.	?	?
37	-	-	?	?	?	?	.	.	?	A.	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	.	?	X	?	?	?	?

One was collected on 5 August 1934.

4-G-8. DOWNY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	.	.	?	.	?	.	?	.Z
AV MONTH. FREQ			?	?	?	?	?	.	?	?	?	?	?	+

4-G-9. HAIRY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	.Z	?	?	.	.Z	A.	?	.	.Z	A.
36	-	-	?	?	.Z	?	A.	A.	?	.	?	.Z	?	?
37	-	-	?	?	?	A.	.Z	.	?	.Z	?	.Z	?	A.
AV MONTH. FREQ			?	?	X	+	X	+	+	X	?	X	+	X

One was collected on 30 March 1936.

4-G-10. NORTHERN FLICKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	.	.	?	.	?	A.	?	?
AV MONTH. FREQ			?	?	?	?	?	.	?	?	?	+	?	?

4-G-11. PILEATED WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
33	-	-	?	?	A.	?	?	?	?	?	?	.Z	?	?
35	-	-	?	?	?	A.	?	.Z	?	.Z	.Z	.	?	?
36	-	-	?	?	A.	A.	.Z	.Z	?	.	?	.	?	?
37	-	-	?	?	?	.Z	.	AZ	?	?	?	?	?	?
AV MONTH. FREQ			?	?	X	X	+	X	?	+	+	+	?	?

4-G-12. OLIVE-SIDED FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	05/24	-	?	?	?	?	.Z	A.	?	.	?	.	?	?
AV MONTH. FREQ			?	?	?	?	+	+	?	?	?	?	?	?

4-G-13. PACIFIC-SLOPE FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	?	.	?	?	?	.	?	?
36	05/15	08/09	?	?	?	?	AZ	AZ	AZ	A.	?	.	?	?
37	05/15	-	?	?	?	?	A.	.	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	X	+	+	+	?	?	?	?

One was collected on 15 May 1937.

4-G-14. GRAY JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	?	AZ	.Z	.Z	?	?
36	-	-	?	?	?	?	.	.	?	.Z	.Z	.	?	AZ
37	-	-	?	.Z	?	?	.Z	.	?	A.	AZ	?	?	?
AV MONTH. FREQ			?	+	?	?	+	+	?	X	X	+	?	+

On 27 June 1935, two adults and two young of the year Gray Jays were seen, presumably in a family group away from the nest.

4-G-15. STELLER'S JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	.Z	?	AZ	AZ	AZ	AZ	?	A.	?	?
36	-	-	A.	?	?	AZ	A.	.	A.	AZ	AZ	.	?	?
37	-	-	?	?	?	?	AZ	.Z	A.	A.	A.	?	?	?
AV MONTH. FREQ			+	?	+	+	X	X	X	X	X	+	?	?

4-G-16. COMMON RAVEN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	A.	?	.	?	?	?	A.	?	A.
36	-	-	?	?	?	A.	.	.	?	.Z	?	.Z	?	.Z
37	-	-	?	?	?	?	.	.	?	?	?	?	?	A.
AV MONTH. FREQ			?	?	?	X	?	.	?	+	?	X	?	X

4-G-17. CHICKADEE SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	.Z	AZ	.Z	AZ	AZ	AZ	AZ	AZ	AZ	?
36	-	-	AZ	A.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	.Z	AZ	.Z
37	-	-	AZ	AZ	.Z	?	.Z	AZ	AZ	.Z	AZ	AZ	?	?
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	+

Most, if not all, of these were probably Chestnut-backed Chickadees, but some may have been Black-cappeds.

4-G-18. RED-BREASTED NUTHATCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	AZ	.	A.	?	.Z	A.	.Z	?
36	-	-	?	A.	.Z	AZ	A.	.	?	.Z	AZ	.Z	?	?
37	-	-	?	.Z	?	A.	.	.	?	?	?	?	?	?
AV MONTH. FREQ			?	X	+	X	X	.	+	+	X	X	+	?

4-G-19. BROWN CREEPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	.Z	?	.Z	?	AZ	.Z	A.	.Z	?
36	-	-	?	?	AZ	.Z	A.	.Z	AZ	.Z	A.	AZ	.Z	AZ
37	-	-	.Z	AZ	A.	.Z	AZ	A.	AZ	.Z	AZ	A.	AZ	.Z
AV MONTH. FREQ			+	+	X	X	X	X	X	X	X	X	X	X

4-G-20. WINTER WREN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
36	-	-	AZ	A.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
37	-	-	AZ	AZ	AZ	AZ	AZ	AZ	A.	AZ	AZ	AZ	AZ	A.
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

On 13 July 1936, a family group with four young were seen away from the nest.

4-G-21. AMERICAN DIPPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	.	.	?	.	?	.	.Z	?
AV MONTH. FREQ			?	?	?	?	?	.	?	?	?	?	+	?

On 29 November 1936, one was collected. Bill length=18 mm, tail length=45 mm, body length=120 mm, total length=183 mm, tarsus=30 mm, hind toe and claw=17 mm, hind toe's claw only=6 mm. Iris=grayish brown or fawn. Bill black above, grayish below, white lower base. The legs were dark and whitish above. The toes were black above, yellow beneath; the toes became white above after death.

4-G-22. KINGLET SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	?	AZ	AZ	.Z	AZ	?	AZ	?	.	?	AZ
36	-	-	A.	?	AZ	A.	.	.	?	.Z	AZ	AZ	AZ	AZ
37	-	-	AZ	AZ	AZ	?	AZ	.	?	.Z	AZ	AZ	AZ	.Z
AV MONTH. FREQ			X	+	X	X	X	+	?	X	X	X	X	X

Most, if not all, of these records are probably Golden-crowned Kinglets, but some may be Ruby-crowned Kinglets.

GOLDEN-CROWNED KINGLET

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	?	?	?	?	?	?	?	?	.	?	?
36	-	-	?	?	?	?	.	.	?	?	?	?	?	?
37	-	-	?	?	?	?	?	.	?	?	?	?	?	?
AV MONTH. FREQ			+	?	?	?	?	?	?	?	?	?	?	?

Most, if not all, of the kinglet spp. records were probably Golden-crowned Kinglets, so months when kinglet spp. were recorded, but not Golden-crowneds, are indicated by a "?"

On 26 January 1935, one was collected. It had a body length of 95 mm, its tail was 40 mm, its feet were yellow, and its iris color was brown.

4-G-23. SWAINSON'S THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	.Z	?	?	.	?	?
36	-	-	?	?	?	?	.	A.	AZ	.	?	.	?	?
37	05/29	-	?	?	?	?	.Z	AZ	AZ	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	+	X	X	?	?	?	?	?

One was collected on 7 June 1937.

4-G-24. AMERICAN ROBIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	?	?	?	.	?	?
AV MONTH. FREQ			?	?	?	?	?	+	?	?	?	?	?	?

4-G-25. VARIED THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
33	-	-	?	?	?	?	?	?	?	?	?	?	.Z	.Z
35	-	-	?	?	?	A.	A.	.Z	A.	A.	?	A.	.Z	?
36	-	-	?	?	?	A.	AZ	.	A.	A.	.Z	.Z	A.	.Z
37	-	-	AZ	?	A.	AZ	AZ	A.	A.	A.	?	?	?	?
AV MONTH. FREQ			+	?	+	X	X	X	X	X	+	X	X	X

4-G-26. HERMIT WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	?	.	?	?	?	.	?	?
36	05/10	-	?	?	?	?	AZ	A.	?	.	?	.	?	?
37	05/22	07/21	?	?	?	?	.Z	AZ	A.	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	X	X	+	?	?	?	?	?

One was collected on 22 May 1937.

4-G-27. WILSON'S WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/12	-	?	?	?	?	AZ	A.	?	?	?	.	?	?
36	05/10	-	?	?	?	?	AZ	A.	?	.	?	.	?	?
37	05/09	-	?	?	?	?	A.	A.	A.	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	X	X	+	?	?	?	?	?

4-G-28. SONG SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	.Z	AZ	?	?	?	.	?	?
36	No Records		?	?	?	?	.	.	?	.	?	.	?	?
37	-	-	.Z	?	?	?	.	.	?	?	?	?	?	?
AV MONTH. FREQ			+	?	?	?	+	+	?	?	?	?	?	?

4-G-29. DARK-EYED (Oregon) JUNCO

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.Z	?	?	?	.	.	?	?	?	?	?	?
AV MONTH. FREQ			+	?	?	?	.	.	?	?	?	?	?	?

4-G-30. BREWER'S BLACKBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	.Z	.	?	.	?	.	?	?
AV MONTH. FREQ			?	?	?	?	+	.	?	?	?	?	?	?

On 30 May 1936:

1) One nest that had young banded the previous week was now empty.
2) One nest that had three young banded the previous week now had three dead banded nestlings.
3) One nest had three live young.
4) One nest had four live young.
5) One nest had six eggs.

4-G-31. RED CROSSBILL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	05/12	?	?	.Z	.Z	A.	.	?	?	?	.	.Z	?
36	06/13	-	?	?	?	?	.	A.	AZ	AZ	A.	AZ	AZ	AZ
37	-	06/07	AZ	?	AZ	A.	AZ	A.	?	?	?	?	?	?
AV MONTH. FREQ			+	?	X	X	X	X	+	+	+	+	X	+

Chap. 5. RECORDS ALONG TRAIL F AT 840-880 FT AT THE TILLAMOOK/LINCOLN COUNTY BORDER BY MACNAB, DIRKS-EDMUNDS, AND OTHERS

5-A. INTRODUCTION

While hiking to their main study area (the Station), Macnab, Dirks-Edmunds, McKey-Fender, and others also made some incidental observations along Trail F (Fig. 2.1). Only 1935-1937 records are included here, although they had a few observations in other years.

5-B. STUDY AREA AND METHODS

Location: T6S, R9W, Sections 13 and 24
Area Studied: ?
Habitat(s): Mixed
Elevation: about 840-880 ft (256-268 m)
Distance to Coastline: about 13 mi (21 km).

In August 1988, Dirks-Edmunds (pers. comm.) indicated that the vegetation along Trail F in 1935-1937 was coniferous old-growth forest similar to that at the Station (section 2-B), but the area near the Salmon River (Fig. 2.1) was more open with deciduous trees, shrubs, and ferns.

The methods of observation here were probably the same as for their other areas and are described in section 2-C. Note, however, that observations at Trail F were probably not as intensive as at their main study area, the Station. The number of observation days each month along Trail F is in Table 5.1.

5-C. TOLERABLE OBSERVATION EFFORT (TOE)

The term Tolerable Observation Effort (TOE) is used to emphasize that if certain criteria are attained, effort is judged Tolerable (i.e., moderately good or passable), so that observations can be considered as presence/absence data, not just as presence data (Bayer 1993:14-15). However, TOE does not indicate an effort in which all taxa present were recorded; TOE suggests only that effort was probably sufficient to find most, if not all, conspicuous, common taxa and, perhaps, some of the more inconspicuous or uncommon taxa (Bayer 1993:10-16).

Criteria for a TOE month are listed in section 2-D.

The observers often had months with three or more observations (Table 5.1), and there were many months that had 60% or more of the monthly maximum number of species (Table 5.2). Nevertheless, they rarely averaged four or more species per observation (Table 5.1), and they only had eight or more species per month in four months (Table 5.2), so Bayer consider their observation effort too incidental to be considered as TOE.

5-D. SHORTCOMINGS OF OBSERVATIONS

These observations have the same shortcomings as those at the Station (section 2-E), and, in addition, observations at Trail F were probably less systematic than at their main study area, the Station (Chap. 2).

5-E. RESULTS AND DISCUSSION

A total of 26 species were recorded, with 16-18 species found each year (Table 5.2). There were no waterbird species recorded at Trail F (Table 5.3). The range in the maximum number of species per month was 3-11, and the range in total species per month was 4-13 (Table 5.2).

The greatest number of species was recorded in October (Table 5.2), but this may be more an artifact of greater observation effort then than indicate that the diversity of species was greatest in October.

****

5-F. TABLES

Table 5.1. Number of observations and number of taxa/observation along Trail F at the Lincoln/Tillamook County border. There was one observation per day. Chickadee spp. and kinglet spp. are not included.

Codes:
N=number of Observations/Month
SD=Standard Deviation
-=not applicable
Yrs=number of years with at least one observation
MAX=maximum (maximum of Means given only if N is two or more.

	Taxa/Observation																	
	January				February				March				April				May			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	0	-	-	-	0	-	-	-	4	1.8	1.0	1-3	5	2.0	0.7	1-3	4	2.8	0.5	2-3
36	2	1.0	0	1	3	2.0	1.0	1-3	5	2.0	0.7	1-3	4	2.3	0.5	2-3	5	3.0	1.9	1-6
37	5	1.8	0.8	1-3	3	1.3	0.6	1-2	4	1.5	0.6	1-2	4	2.3	0.5	2-3	5	3.6	1.1	2-5
Yrs	2	-	-	-	2	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	7	-	-	-	6	-	-	-	13	-	-	-	13	-	-	-	14	-	-	-
MAX	5	1.8	-	3	3	2.0	-	3	5	2.0	-	3	5	2.3	-	3	5	3.6	-	6

	Taxa/Observation																	
	June				July				August				September				October			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	5	3.0	1.6	1-5	4	3.3	1.7	1-5	4	2.3	1.5	1-4	3	2.3	1.5	1-4	4	2.8	1.7	1-5
36	4	2.5	1.3	1-4	4	4.3	1.5	2-5	4	3.3	0.5	3-4	3	4.0	2.6	2-7	4	2.3	1.5	1-4
37	3	2.3	2.3	1-5	3	2.3	0.6	2-3	3	3.0	1.0	2-4	3	2.3	1.2	1-3	2	1.5	0.7	1-2
Yrs	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	12	-	-	-	11	-	-	-	11	-	-	-	9	-	-	-	10	-	-	-
MAX	5	3.0	-	5	4	4.3	-	5	4	3.3	-	4	3	4.0	-	7	4	2.8	-	5

	Taxa/Observation								Total
	November				December				Observations/
Yr	N	Mean	SD	Range	N	Mean	SD	Range	Year
35	4	3.0	0	3	3	2.3	1.5	1-4	40
36	4	2.3	0.5	2-3	4	2.3	0.5	2-3	46
37	2	2.0	0	2	2	1.0	0	1	39
Yrs	3	-	-	-	3	-	-	-	3
SUM	10	-	-	-	9	-	-	-	125
MAX	4	3.0	-	3	4	2.3	-	4	46

Table 5.2. Total bird taxa recorded each month and year along Trail F at the Lincoln/Tillamook County border. These data are calculated from Table 5.1 and section 5-G. Chickadee spp. and kinglet spp. are not included.

Codes:
*=TOE month based on section 5-C and Table 5.1
Record=one bird taxon seen or heard during one Observation
Monthly Records (calculated from Table 5.1)= (number of Observations) X (Mean Taxa/Obs.), rounded to the nearest whole number
Total Records=sum of Monthly Records
Total Taxa=total number of taxa recorded each year
Records/Taxon=Total Records for year divided by the total number of taxa noted that year
Records/Obs.=Total Records for year divided by the number of Observations that year from Table 5.1
.=zero ("." is used to enhance readability)
MAX=maximum
#Taxa=total number of taxa recorded during all of 1935-1937.

	Taxa/Month.....												Total	Total	Records per...	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Records@	Taxa	Taxon	Obs.
1935	0	0	4	5	6	7	7	7	2	8	7	3	102	17	6.0	2.6
1936	3	4	6	5	7	5	8	5	7	11	4	3	121	18	6.7	2.6
1937	5	2	3	4	8	6	4	7	4	3	3	1	85	16	5.3	2.2
MAX	5	4	6	5	8	7	8	7	7	11	7	3	121	18	6.7	2.6
60% of MAX	3.0	2.4	3.6	3.0	4.8	4.2	4.8	4.2	4.2	6.6	4.2	1.8	72.6	10.8	-	-
yrs of 60%	2	1	2	3	3	3	2	3	1	2	1	2	3	3	-	-
yrs of TOE	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-
#Taxa	6	5	7	9	11	10	12	9	9	13	8	4	-	26	-	-
MAX/#Taxa	0.8	0.8	0.9	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.8	-	0.7	-	-

@ There were a grand total of 308 Records.

Table 5.3. Number and regularity of bird taxa along Trail F at the Lincoln/Tillamook County border during 1935-1937. These data are calculated from section 5-G.

Waterbirds=aquatic taxa (e.g., members of heron family, waterfowl, rails, shorebirds, gulls, Belted Kingfisher, and American Dipper).
Terrestrial Birds=all other species, but chickadee spp. and kinglet spp. are not included.

No. of Years with 60% or more of MAX	Waterbirds..... No. of Taxa	% of Total	Terrestrial Birds No. of Taxa	% of Total
1	0	0.0	12	46.2
2	0	0.0	3	11.5
3	0	0.0	11	42.3
Sum	0	0.0	26	100.0

****

5-G. TAXA ACCOUNTS

5-G-1. YEARS WITHOUT RECORDS

A year may be listed for a taxon even though the taxon was not recorded. Years without records are designated by having "No Records" in the First and Last columns. This is done to make it clearer that a taxon was not found every year. Years of absence are given for taxa present two out of three years.

5-G-2. FIRST AND LAST DATES

These are the first and last dates, respectively, that a taxon was recorded. Note that a taxon may have been present before a First or after a Last date (Faxon and Bayer 1991:29-31). A First or Last date is only listed if there appear to be enough observations to somewhat accurately determine the date.

-=not possible to assign a First or Last date because the bird taxon was present continually or erratically throughout the year, because observation effort may have been inadequate to determine the First or Last date reasonably accurately, or because the date was not recorded.

5-G-3. SEMIMONTHLY FREQUENCY

A.=taxon recorded in the first part (1-15th) of a month; it wasn't noted later that month.

.Z=taxon recorded from the 16th to the end of a month; it wasn't noted earlier that month.

AZ=taxon recorded during both portions (1-15th and 16th-end) of a month.

?=taxon not recorded during a month. The apparent absence of the taxon may reflect inadequate observation effort, not the taxon's absence (section 5-C).

5-G-4. AVERAGE MONTHLY FREQUENCY

AV MONTH. FREQ=average monthly frequency of occurrence of a taxon (see Bayer 1993:20) in 1935-1937. The relative frequency is expressed by a "+", "X", or "?", depending on the presence of a taxon.
+=taxon recorded in only one year.
X=taxon recorded in two or more years.
?=taxon not recorded in any year, but there were no TOE months (Table 5.2), so observation effort was considered inadequate to determine if the taxon was absent or may have been present but not recorded (e.g., Bayer 1993:14-16).

5-G-5. BLUE GROUSE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	.Z	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	+	?	?

5-G-6. RUFFED GROUSE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.Z	?	?	?	?	?	?	?	?	?	?	?
AV MONTH. FREQ			+	?	?	?	?	?	?	?	?	?	?	?

5-G-7. BAND-TAILED PIGEON

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	+	?	?	?	?	?	?

5-G-8. WESTERN SCREECH-OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	?	?	.Z	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	?	?	?

One was collected on 20 July 1936.

5-G-9. NORTHERN PYGMY-OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
36	No Records		?	?	?	?	?	?	?	?	?	?	?	?
37	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	X	+	?	?	?

One was collected on 16 August 1937.

5-G-10. HAIRY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	A.	?	?	?	?	?	?	?	.Z	A.
36	-	-	?	?	A.	?	?	?	?	?	?	.Z	A.	?
37	-	-	?	?	?	?	.Z	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	X	?	+	?	?	?	?	+	X	+

5-G-11. NORTHERN FLICKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	?	?	?	?	?	A.	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	+	?	?

5-G-12. PILEATED WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	.Z	?	?	?	?	?	?	?	?
36	-	-	?	?	?	A.	.Z	?	?	?	A.	?	?	?
37	-	-	?	?	?	?	?	?	?	?	.Z	?	?	?
AV MONTH. FREQ			?	?	?	X	+	?	?	?	X	?	?	?

5-G-13. PACIFIC-SLOPE FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	05/15	08/02	?	?	?	?	AZ	AZ	AZ	A.	?	?	?	?
AV MONTH. FREQ			?	?	?	?	+	+	+	+	?	?	?	?

5-G-14. GRAY JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	.Z	?	?
36	-	-	?	?	?	.Z	?	?	?	?	?	AZ	?	?
37	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
AV MONTH. FREQ			?	?	?	+	?	?	?	+	?	X	?	?

5-G-15. STELLER'S JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	A.	?	AZ	.Z	?	AZ	?	A.	?	?
36	-	-	?	?	.Z	AZ	.Z	AZ	A.	AZ	AZ	AZ	?	?
37	-	-	?	?	?	?	A.	?	?	A.	?	A.	A.	?
AV MONTH. FREQ			?	?	X	+	X	X	+	X	+	X	+	?

5-G-16. COMMON RAVEN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	?	?	?	?	A.	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	+	?	?	?

5-G-17. CHICKADEE SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	.Z	.Z	AZ	.Z	?	?	?	?	A.	?
36	-	-	.Z	.Z	AZ	A.	?	?	A.	.Z	.Z	.Z	AZ	AZ
37	-	-	AZ	A.	A.	AZ	A.	?	?	.Z	AZ	AZ	.Z	?
AV MONTH. FREQ			X	X	X	X	X	+	+	X	X	X	X	+

Most, if not all, of these records may have been Chestnut-backed Chickadees. Since these records were only identified as chickadees, it is most accurate to simply list these records as chickadees.

BLACK-CAPPED CHICKADEE

A few of the chickadee spp. records may have been Black-capped Chickadees, especially since deciduous trees occurred along Trail F.

CHESTNUT-BACKED CHICKADEE

Most, if not all, of the chickadee spp. records were probably Chestnut-backed Chickadees.

5-G-18. RED-BREASTED NUTHATCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	.Z	?	.Z	A.	.Z	?
36	-	-	A.	A.	.Z	?	?	?	?	?	A.	.Z	?	?
37	-	-	.Z	?	?	?	A.	?	?	?	?	?	?	?
AV MONTH. FREQ			X	+	+	?	+	?	+	?	X	X	+	?

5-G-19. BROWN CREEPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	A.	AZ	?
36	-	-	?	.Z	AZ	?	.Z	?	A.	AZ	?	.Z	.Z	AZ
37	-	-	.Z	?	AZ	.Z	.Z	A.	AZ	.Z	AZ	A.	AZ	?
AV MONTH. FREQ			+	+	X	+	X	+	X	X	+	X	X	+

5-G-20. WINTER WREN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	AZ	AZ	AZ	AZ	AZ	A.	.Z	AZ	AZ	AZ
36	-	-	AZ	A.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	.Z	AZ	AZ
37	-	-	AZ	AZ	AZ	AZ	AZ	A.	AZ	AZ	AZ	.Z	.Z	AZ
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

On 8 June 1936, two adults were flying with and feeding four young away from the nest. The young were almost as large as the adults. The mouthparts of the young were still tinged with yellow.

5-G-21. KINGLET SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	.Z	AZ	.Z	.Z	.Z	AZ	.Z	AZ	.Z	?
36	-	-	?	A.	AZ	AZ	AZ	.Z	AZ	AZ	.Z	.Z	AZ	.Z
37	-	-	.Z	AZ	A.	AZ	AZ	A.	AZ	AZ	AZ	A.	A.	A.
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

Most, if not all, of these records may have been Golden-crowned Kinglets. Since these records were only identified as kinglets, it is most accurate to simply list these records as kinglets.

GOLDEN-CROWNED KINGLET

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	.Z	A.	?
36	-	-	?	?	?	?	?	?	?	?	?	?	?	?
37	-	-	?	?	?	?	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	+	+	?

One was collected on 26 October 1935.

Most, if not all, of the kinglet spp. records were probably Golden-crowned Kinglets.

RUBY-CROWNED KINGLET

A few of the kinglet spp. records may have been Ruby-crowned Kinglets.

5-G-22. SWAINSON'S THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/26	08/15	?	?	?	?	.Z	A.	AZ	A.	?	?	?	?
36	-	09/02	?	?	?	?	?	A.	AZ	A.	A.	?	?	?
37	-	-	?	?	?	?	?	A.	AZ	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	+	X	X	X	+	?	?	?

5-G-23. AMERICAN ROBIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	.Z	A.	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	+	+	?	?	?	?	?

5-G-24. VARIED THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	A.	AZ	AZ	?	AZ	AZ	?	A.	A.	?
36	-	-	.Z	A.	?	A.	A.	A.	AZ	?	?	AZ	?	?
37	-	-	?	?	?	AZ	A.	AZ	?	.Z	?	?	?	?
AV MONTH. FREQ			+	+	+	X	X	X	X	X	?	X	+	?

One was collected on 13 April 1935.

On 7 June 1937, one young Varied Thrush was seen by itself away from a nest.

5-G-25. HERMIT WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	?	?	?	?	?	?	?	?
36	-	-	?	?	?	?	AZ	?	A.	?	?	?	?	?
37	-	-	?	?	?	?	.Z	.Z	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	X	+	+	?	?	?	?	?

5-G-26. WILSON'S WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	04/27	-	?	?	?	.Z	A.	AZ	AZ	?	?	?	?	?
36	05/10	-	?	?	?	?	AZ	A.	?	?	?	?	?	?
37	05/09	-	?	?	?	?	AZ	A.	A.	?	?	?	?	?
AV MONTH. FREQ			?	?	?	+	X	X	X	?	?	?	?	?

5-G-27. FOX SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	09/09	-	?	?	?	?	?	?	?	?	A.	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	+	?	?	?

5-G-28. SONG SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	?	?	?	?	?	?	?	?	?	?	?
36	-	-	?	?	?	?	?	?	?	?	?	AZ	?	?
37	-	-	?	A.	?	?	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	+	?	?	?	?	?	?	?	+	?	?

5-G-29. DARK-EYED (Oregon) JUNCO

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	?	?	?	?	?	?	?	.Z	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	+	?	?

5-G-30. RED CROSSBILL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	A.	?	?	A.	A.
36	-	-	?	?	A.	?	?	?	AZ	AZ	A.	AZ	A.	.Z
37	-	-	A.	?	.Z	A.	?	?	?	A.	?	?	?	?
AV MONTH. FREQ			+	?	X	+	?	?	+	X	+	+	X	X

5-G-31. PINE SISKIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	A.	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	+	?	?	?	?	?	?	?	?

Chap. 6. RECORDS ALONG TRAILS I OR II AT 615-880 FT IN TILLAMOOK COUNTY BY MACNAB, DIRKS-EDMUNDS, AND OTHERS

6-A. INTRODUCTION

While hiking to their main study area, the Station, Macnab, Dirks-Edmunds, McKey-Fender, and others also made some incidental observations along either Trail I or Trail II in Tillamook County (Fig. 2.1).

Trail I was the route used in the early years, and Trail II was the main route in 1936-1937 (Table 6.1). In August 1988, Dirks-Edmunds wrote that the reason for the change was that traffic had become so heavy along Highway 18 that it wasn't safe to hike along the highway from Boyer's to the head of Trail I (see Fig. 2.1).

Bayer has chosen to mainly use their 1935-1937 records because they seemed to be the most consistent and of the highest quality, but he includes a few 1932-1934 records that seemed to be particularly noteworthy.

6-B. STUDY AREA AND METHODS

6-B-1. TRAIL I

Location: T6S, R9W, Sections 13-14
Area Studied: ?
Habitat(s): Mixed
Elevation: 660-880 ft (201-268 m)
Distance to Coastline: about 13 mi (21 km).

In her November 1987 letter, Dirks-Edmunds indicated that they had measured Trail I, and it was 5,907 ft (1,800 m) long.

In her August 1988 letter, Dirks-Edmunds wrote that there was a short strip of old-growth coniferous trees near the Highway; along the rest of Trail I, there were openings, riparian zones, and coniferous and deciduous trees.

6-B-2. TRAIL II

Location: T6S, R9W, Sections 12-13
Area Studied: ?
Habitat(s): Mixed
Elevation: 615-880 ft (187-268 m)
Distance to Coastline: about 13-13.8 mi (21-22 km)

In her November 1987 letter, Dirks-Edmunds indicated that they had measured Trail II, and it was 11,500 ft (3,505 m) long.

In her August 1988 letter, Dirks-Edmunds wrote that there were a mixture of riparian areas, coniferous old-growth, brushy openings, and forest areas along Trail II.

6-B-3. STUDY AREA CONCLUSIONS

Although Macnab et al. kept records separate for these Trails and these Trails differed in length, Bayer has chosen to pool the results for them because of convenience. But it should be recognized that some of the differences in results among years may be more a result of different Trails being traversed than differences in bird occurrence among years.

The number of observations along Trail I or Trail II are given in Table 6.1. Accordingly, the reader could use Table 6.1 and the Taxa Accounts (section 6-G) to see if differences in presence for a particular species may be a result of a different Trail being traversed.

6-C. TOLERABLE OBSERVATION EFFORT (TOE)

The term Tolerable Observation Effort (TOE) is used to emphasize that if certain criteria are attained, effort is judged Tolerable (i.e., moderately good or passable), so that observations can be considered as presence/absence data, not just as presence data (Bayer 1993:14-15). However, TOE does not indicate an effort in which all taxa present were recorded; TOE suggests only that effort was probably sufficient to find most, if not all, conspicuous, common taxa and, perhaps, some of the more inconspicuous or uncommon taxa (Bayer 1993:10-16).

Criteria for a TOE month are listed in section 2-D.

The observers often had months with three or more observations (Tables 6.1 and 6.2), and there were many months that had 60% or more of the monthly maximum number of species (Table 6.3). Because Bayer suspects that the observers were probably fairly consistent in their identifications (i.e., they probably consistently

recorded some species and consistently missed others), he uses criterion #2 to define TOE months. This is a judgment call, and, if the reader wishes to use less or more restrictive definitions in defining TOE, he or she can use Tables 6.2 and 6.3 and section 6-G to redefine TOE.

****

6-D. SHORTCOMINGS OF OBSERVATIONS

The observations here have the same shortcomings as those at the Station (section 2-E), and, in addition, observations at Trails I or II were probably less systematic than at their main study area, the Station (Chap. 2).

****

6-E. RESULTS AND DISCUSSION

A total of 54 species were found in 1935-1937, with 34-43 found in each of these years (Table 6.3). In addition, four other species were found only during 1932-1934 (Table 6.4). Of all these species, only two were waterbirds, and nearly half of the terrestrial bird species were found each year during 1935-1937 (Table 6.4).

The range in the maximum number of species found per month was 12-28, and the range in total species recorded each month was 13-38 (Table 6.3). The yearly peak number of species was in April or May during 1936 and 1937 (Table 6.3).

****

6-F. TABLES

Table 6.1. Number of observations along either Trail I or Trail II in Tillamook County. These data are from McKey-Fender's compilation. .=zero.

Year	Trail	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1935	I	.	.	4	5	4	5	3	2	.	.	.	.	23
	II	.	.	.	.	.	.	1	2	4	4	4	5	20
1936	I	4	4	3*	1*	1	2	.	.	.	.	.	.	15*
	II	.	.	4*	4*	4	2	4	4	3	4	4	4	37*
1937	I	.	.	.	.	.	2	.	.	.	.	.	.	2
	II	5	4	4	4	5	1	4	3	4	5	4	2	45

* In March 1936, both Trails were traversed during two days; in April 1936, both Trails were traversed during one day. Thus, the Sum of Observations in 1936 (52) is three greater than the Total Observation Days in Table 6.2.

Table 6.2. Number of observation days and number of taxa/observation day along Trail I or II in Tillamook County. Although on two dates there were three observations per day (see footnote * in Table 6.1), there was usually only one observation per day. Chickadee spp. and kinglet spp. are not included.

Codes:
N=number of Observation Days/Month
SD=Standard Deviation
-=not applicable
Yrs=number of years with at least one Observation Day
MAX=maximum (maximum of Means given only if N is two or more.

	Taxa/Observation Day														
	January				February				March				April				May			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	0	-	-	-	0	-	-	-	4	6.0	1.8	4-8	5	4.4	0.9	4-6	4	8.5	2.1	6-11
36	4	3.0	1.8	1-5	4	2.3	1.5	1-4	5	8.2	2.5	4-10	4	10.8	2.6	7-13	5	11.2	0.8	10-12
37	5	7.0	3.6	2-11	4	7.8	1.5	6-9	4	5.5	1.3	4-7	4	13.8	2.8	11-17	5	14.8	2.9	11-19
Yrs	2	-	-	-	2	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	9	-	-	-	8	-	-	-	13	-	-	-	13	-	-	-	14	-	-	-
MAX	5	7.0	-	11	4	7.8	-	9	5	8.2	-	10	5	13.8	-	17	5	14.8	-	19

	Taxa/Observation Day																			
	June				July				August				September				October			
Yr	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range	N	Mean	SD	Range
35	5	7.0	1.0	6-8	4	5.3	2.2	2-7	4	8.3	3.9	3-12	4	5.5	4.2	1-11	4	7.3	2.6	5-11
36	4	9.5	3.3	6-14	4	9.8	3.0	6-13	4	9.0	4.8	5-16	3	8.7	2.1	7-11	4	7.3	1.7	5-9
37	3	13.3	4.9	10-19	4	12.8	5.0	6-18	3	11.7	2.5	9-14	4	8.0	3.2	5-12	5	7.2	3.6	2-11
Yrs	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-	3	-	-	-
SUM	12	-	-	-	12	-	-	-	11	-	-	-	11	-	-	-	13	-	-	-
MAX	5	13.3	-	19	4	12.8	-	18	4	11.7	-	16	4	8.7	-	12	5	7.3	-	11

	Taxa/Observation Day								Total
	November				December				Observation Days/
Yr	N	Mean	SD	Range	N	Mean	SD	Range	Year
35	4	6.0	1.2	5-7	5	4.0	1.6	2-6	43
36	4	6.5	1.3	5-8	4	6.0	1.4	5-8	49
37	4	2.8	0.5	2-3	2	3.5	0.7	3-4	47
Yrs	3	-	-	-	3	-	-	-	3
SUM	12	-	-	-	11	-	-	-	139
MAX	4	6.5	-	8	5	6.0	-	8	49

Table 6.3. Total bird taxa recorded each month and year along Trail I or II in Tillamook County. These data are calculated from Table 6.2 and section 6-G. Chickadee spp. and kinglet spp. are not included.

Codes:
*=TOE month based on section 6-C and Table 6.2
Record=one bird taxon seen or heard during one Observation
Monthly Records (calculated from Table 6.2)= (number of Observations) X (Mean Taxa/Obs.), rounded to the nearest whole number
Total Records=sum of Monthly Records
Total Taxa=total number of taxa recorded each year
Records/Taxon=Total Records for year divided by the total number of taxa noted that year
Records/Obs.=Total Records for year divided by the number of Observations that year from Table 6.2
.=zero ("." is used to enhance readability)
MAX=maximum
#Taxa=total number of taxa recorded during all of 1935-1937.

	Taxa/Month.....												Total	Total	Records per...	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Records@	Taxa	Taxon	Obs.
1935	6	8*	15*	15	15	16*	13*	16*	10*	13*	13*	12*	264	34	7.8	6.1
1936	6	6	14*	17*	28*	17*	18*	19*	15*	11*	15*	11*	379	39	9.7	7.7
1937	15*	13*	10*	28*	28*	21*	21*	19*	15*	14*	5	4	429	43	10.0	9.1
MAX	15	13	15	28	28	21	21	19	15	14	15	12	429	43	10.0	9.1
60% of MAX	9.0	7.8	9.0	16.8	16.8	12.6	12.6	11.4	9.0	8.4	9.0	7.2	257.4	25.8	-	-
yrs of 60%	1	2	3	2	2	3	3	3	3	3	2	2	3	3	-	-
yrs of TOE	1	2	3	2	2	3	3	3	3	3	2	2	-	-	-	-
#Taxa	15	17	20	33	38	27	26	28	20	20	20	13	-	54@@	-	-
MAX/#Taxa	1.0	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.8	0.7	0.8	0.9	-	0.8	-	-

@ There were a grand total of 1,072 records.
@@ Four additional species were only recorded in 1932-1934 (Table 6.4).

Table 6.4. Number and regularity of bird taxa along Trail I or II in Tillamook County for selected years. These data are calculated from section 6-G only for the three years that had 60% or more of the maximum number of taxa recorded in one year (MAX=43 taxa) in Table 6.3; these years are 1935-1937.

Waterbirds=aquatic taxa (e.g., members of heron family, waterfowl, rails, shorebirds, gulls, Belted Kingfisher, and American Dipper).

Terrestrial Birds=all other species, but chickadee spp. and kinglet spp. are not included.

Other Years=number of taxa only found in years with less than 60% of the yearly maximum number of taxa (i.e., 1932-1934).

No. of Years with 60% or more of MAX	Waterbirds..... No. of Taxa	% of Total	Terrestrial Birds No. of Taxa	% of Total
1	1	100.0	17	32.1
2	0	0.0	10	18.9
3	0	0.0	26	49.1
Sum	1	100.0	53	100.1
Other Years	1	-	3	-

****

6-G. TAXA ACCOUNTS

6-G-1. YEARS WITHOUT RECORDS

A year may be listed for a taxon even though the taxon was not recorded. Years without records are designated by having "No Records" in the First and Last columns. This is done to make it clearer that a taxon was not found every year. Years of absence are given for taxa present two out of three years.

6-G-2. FIRST AND LAST DATES

These are the first and last dates, respectively, that a taxon was recorded. Note that a taxon may have been present before a First or after a Last date (Faxon and Bayer 1991:29-31). A First or Last date is only listed if there appear to be enough observations to somewhat accurately determine the date.

-=not possible to assign a First or Last date because the bird taxon was present continually or erratically throughout the year, because observation effort may have been inadequate to determine the First or Last date reasonably accurately, or because the date was not recorded.

6-G-3. SEMIMONTHLY FREQUENCY

A.=taxon recorded in the first part (1-15th) of a month; it wasn't noted later that month.

.Z=taxon recorded from the 16th to the end of a month; it wasn't noted earlier that month.

AZ=taxon recorded during both portions (1-15th and 16th-end) of a month.

.=taxon not recorded in a TOE month (Table 6.3). Thus, the taxon was probably absent, but there is still a chance that it may have been overlooked. A "." is used instead of a "0" (zero) to enhance readability of when the taxon appears to have been absent.

?=taxon not recorded during a non-TOE month (Table 6.3). Thus, the apparent absence of the taxon may reflect inadequate observation effort, not the taxon's absence.

6-G-4. AVERAGE MONTHLY FREQUENCY

AV MONTH. FREQ=average monthly frequency of occurrence of a taxon (see Bayer 1993:20) in 1932-1937. Some 1932-1934 data are only included for a few records that seemed particularly noteworthy. The relative frequency is expressed by a ".", "+", "X", or "?", depending on the presence or absence of a taxon and the adequacy of observation effort.

+=taxon recorded in only one year.

X=taxon recorded in two or more years.

.=taxon was not recorded during any non-TOE or TOE months, although there were three or more months with TOE. A "." is used instead of a "0" to enhance readability of when a species appears to have been absent.

?=taxon not recorded in any year, but there were less than three TOE months (Table 6.3), so observation effort was considered inadequate to determine if the taxon was absent or may have been present but not recorded (e.g., Bayer 1993:14-16).

6-G-5. TURKEY VULTURE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	-	-	?	?	.	.	.Z	.	.	.	.	.	.	.
37	04/25	-	.	.	.	.Z	.	.	.	.	.	.	?	?
AV MONTH. FREQ			?	?	.	+	+	.	.	.	.	.	?	?

6-G-6. BALD EAGLE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
32	12/04	12/04	?	?	?	?	?	?	?	?	?	?	?	A.
34	08/28	08/28	?	?	?	?	?	?	?	.Z	?	?	?	?
AV MONTH. FREQ			?	?	.	?	?	.	.	+	.	.	?	+

One was once seen at Boyer's in December 1932 and one was also observed once near the Salmon River in August 1934.

6-G-7. RING-NECKED PHEASANT

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.	?	?	.	.	.	.	.	A.	.
AV MONTH. FREQ			?	?	.	?	?	.	.	.	.	.	+	?

6-G-8. BLUE GROUSE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.	?	?	.	.	.	.	.Z	.	.
AV MONTH. FREQ			?	?	.	?	?	.	.	.	.	+	?	?

6-G-9. RUFFED GROUSE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	?	?	?	?	?	?	.Z	?	?	?
35	-	-	?	.	.	?	?	.Z	.	.	.	.	.	.
36	-	-	?	?	.	.	.	.	.	A.	.	.	.	.
37	-	-	.Z	A.	.Z	.Z	.	AZ	.	.	.	.	?	?
AV MONTH. FREQ			+	+	+	+	?	X	.	+	+	.	?	?

6-G-10. BAND-TAILED PIGEON

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/04	10/05	?	.	.	?	AZ	AZ	AZ	A.	.	A.	.	.
36	05/15	-	?	?	.	.	A.	.	AZ	.	.	.	.	.
37	05/07	-	.	.	.	.	A.	A.	A.	AZ	.	.	?	?
AV MONTH. FREQ			?	?	.	?	X	X	X	X	.	+	?	?

AV First=5/9 (5/4-5/15)

6-G-11. GREAT HORNED OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	A.	?	?	.	A.	.	.	.	.	.
36	-	-	?	?	AZ	A.	A.	.	.	.	.	.	.	.
37	-	-	.	.	.	.	.	.	A.	.	.	.	?	?
AV MONTH. FREQ			?	?	X	+	+	.	X	.	.	.	?	?

6-G-12. NORTHERN PYGMY-OWL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	-	-	?	?	.Z	.	.	.	.	.	A.	.	A.	.
AV MONTH. FREQ			?	?	+	?	?	.	.	.	+	.	+	?

On 14 November 1936, one was shot as it was eating an unidentified species of kinglet. The owl's iris was bright yellow. Its bill was greenish-yellow. Its legs were yellow with a greenish tinge above. Its black claws were gray at the base. It had a buffy chest with a white abdomen.

6-G-13. COMMON NIGHTHAWK

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	05/30	-	?	?	.	.	.Z	A.	.	.	.	.	.	.
AV MONTH. FREQ			?	?	.	?	+	+	.	.	.	.	?	?

6-G-14. RUFOUS HUMMINGBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	03/17	-	?	?	.Z	?	?	?	?	?	?	?	?	?
35	04/06	08/25	?	.	.	AZ	AZ	AZ	A.	AZ	.	.	.	.
36	04/11	08/17	?	?	.	AZ	A.	A.	A.	.Z	.	.	.	.
37	04/18	08/16	.	.	.	.Z	A.	.	.	.Z	.	.	?	?
AV MONTH. FREQ			?	?	+	X	X	X	X	X	.	.	?	?

AV First=4/5 (3/17-4/18) AV Last=8/19 (8/16-8/25)

One was collected on 25 April 1937.

6-G-15. BELTED KINGFISHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.	.	.	.	.	.	.	.	.	.Z	?	?
AV MONTH. FREQ			?	?	.	?	?	.	.	.	.	+	?	?

6-G-16. RED-BREASTED SAPSUCKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
33	-	-	?	?	?	?	?	?	?	?	?	?	.Z	?
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	-	-	?	?	.	.Z	.Z	.	.	.	.	.	.	.
37	-	-	.	.	.	.Z	.	.	.	.	.Z	.	?	?
AV MONTH. FREQ			?	?	.	X	+	.	.	.	+	.	+	?

On 24 May 1936, a nest about 100 ft (30 m) up in a snag was seen; the young could be heard when the parents went in to feed them.

One was collected on 25 April 1937.

6-G-17. DOWNY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	A.	A.	?	.	.	.	.	.	.	.
36	-	-	?	?	.	.	.	.	.	AZ	.	.	.	.
37	No Records		.	.	.	.	.	.	.	.	.	.	?	?
AV MONTH. FREQ			?	?	+	+	?	.	.	+	.	.	?	?

They were reported much less often than Hairy Woodpeckers; it is not clear if this may be a result of differences in abundance, from misidentification of Hairy's, or from Downies being overlooked.

6-G-18. HAIRY WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	.	AZ	A.	?	.Z	.	AZ	.Z	AZ	AZ	.Z
36	-	-	?	A.	AZ	AZ	AZ	.	AZ	.	AZ	AZ	.Z	.Z
37	-	-	AZ	A.	.	A.	A.	AZ	AZ	AZ	.Z	AZ	?	?
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

One was collected on 1 April 1935 and also on 4 April 1937.

They were noted much more often than Downies; see comments for Downy Woodpecker.

6-G-19. NORTHERN FLICKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.Z	.Z	.Z	?	.	.	.	.	.	.Z	A.
36	-	-	?	A.	.	AZ	A.	.	.	AZ	A.	AZ	.Z	AZ
37	-	-	AZ	.	A.	.Z	AZ	A.	AZ	.	A.	AZ	A.	?
AV MONTH. FREQ			+	X	X	X	X	+	+	+	X	X	X	X

6-G-20. PILEATED WOODPECKER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	.	AZ	A.	AZ	.	.	.	.Z	A.	.	.
36	-	-	?	?	.	.	.Z	.	.	.Z	A.	.Z	.	.
37	-	-	A.	.	.	AZ	A.	.Z	.	.Z	.	.	?	?
AV MONTH. FREQ			X	?	+	X	X	+	.	X	X	X	?	?

One was collected on 10 January 1937.

6-G-21. OLIVE-SIDED FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/19	-	?	.	.	?	.Z	A.	.	.	.	.	.	.
36	05/16	-	?	?	.	.	.Z	A.	.	.	.	.	.	.
37	-	08/16	.	.	.	.	.	.	A.	AZ	.	.	?	?
AV MONTH. FREQ			?	?	.	?	X	X	+	+	.	.	?	?

On 16 May 1936, one was shot with a 16 gauge shotgun that was about 100 ft (30 m) high in a hemlock. Its iris was dark brown. Its bill was dark brown above, ivory below; the bill was a broad wedge-shape and was slightly hooked at the tip. The bird was olive above. Its brown tail was slightly notched. It had darker wings with two whitish-yellow bars. It was greenish-yellow beneath. Its feet were dark brownish-black above and white beneath; it had dark claws.

One was also collected on 7 August 1937.

6-G-22. PACIFIC-SLOPE FLYCATCHER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	05/15	08/02	?	?	.	.	AZ	AZ	AZ	A.	.	.	.	.
AV MONTH. FREQ			?	?	.	?	+	+	+	+	.	.	?	?

One was collected on 16 May 1936.

6-G-23. VIOLET-GREEN SWALLOW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.	.	.	.	.Z	.	.	.	.	.	?	?
AV MONTH. FREQ			?	?	.	?	+	.	.	.	.	.	?	?

6-G-24. BARN SWALLOW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	09/09	.	.	.	.	.Z	.	A.	.Z	A.	.	?	?
AV MONTH. FREQ			?	?	.	?	+	.	+	+	+	.	?	?

6-G-25. GRAY JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	.Z	?	?	.Z	?	.Z	?	?	AZ	?
35	-	-	?	AZ	.	A.	.Z	.	.	.	AZ	A.	A.	.
36	-	-	A.	?	.Z	A.	.Z	A.	.	AZ	.Z	.Z	.	.
37	-	-	AZ	.	.	AZ	AZ	A.	.	.Z	A.	AZ	?	?
AV MONTH. FREQ			X	+	X	X	X	X	.	X	X	X	X	?

One was collected on 3 February 1935 and also on 18 April 1937.

On 1 September 1935, a fledgling was seen that was apparently not in the company of adults and wasn't at the nest.

On 9 August 1936, an adult with two young were seen away from the nest.

6-G-26. STELLER'S JAY

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	.Z	.Z	?	AZ	?	?	A.	?	AZ	A.
35	-	-	.Z	AZ	AZ	A.	AZ	A.	AZ	AZ	AZ	AZ	AZ	A.
36	-	-	A.	?	AZ	AZ	AZ	AZ	AZ	AZ	A.	AZ	A.	AZ
37	-	-	.Z	.Z	.Z	AZ	AZ	AZ	AZ	AZ	AZ	A.	?	?
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

One was collected on 25 April 1937.

6-G-27. AMERICAN CROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	?	A.	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	.	+	?	.	.	.	.	.	?	?

6-G-28. COMMON RAVEN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	AZ	?	.Z	?	?	?	?	?	?	?	?	?
35	-	-	?	A.	.Z	.Z	A.	.	.Z	A.	.Z	A.	.Z	A.
36	-	-	?	?	A.	AZ	A.	A.	A.	.Z	AZ	.Z	.Z	AZ
37	-	-	.	.	.	.Z	.	.	A.	A.	.	AZ	.Z	?
AV MONTH. FREQ			+	+	X	X	X	+	X	X	X	X	X	X

6-G-29. CHICKADEE SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
36	-	-	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	.Z	A.	.Z
37	-	-	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	A.	AZ
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

Most, if not all, of these records may have been Chestnut-backed Chickadees. Since these records were only identified as chickadees, it is most accurate to simply list these records as chickadees.

BLACK-CAPPED CHICKADEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	?	?	?	?	?	?	?	.Z	AZ	AZ
36	-	-	?	?	?	?	?	?	?	?	?	?	?	?
37	-	-	?	?	?	?	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	?	?	+	+	+

A few of the chickadee spp. records may have been Black-capped Chickadees.

CHESTNUT-BACKED CHICKADEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	?	?	?	?	?	?	?	?	?	?
36	-	-	?	?	?	?	AZ	?	?	?	?	?	?	?
37	-	-	?	?	?	?	A.	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	?	X	?	?	?	?	?	?	?

On 16 May 1936, two adults were seen going into a hole in the bark of a snag; the hole was about 25 ft (8 m) high.

One was collected on 2 May 1937. Most, if

not all, of the chickadee spp. records were probably Chestnut-backed Chickadees.

6-G-30. RED-BREASTED NUTHATCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	?	?	?	?	?	?	?	?	?	AZ
35	-	-	.Z	.	.	?	.Z	AZ	.	AZ	AZ	AZ	.Z	AZ
36	-	-	?	A.	AZ	AZ	A.	.Z	.	.	.	.	A.	.
37	-	-	.Z	.	.	.	AZ	.	.	AZ	.	.	?	?
AV MONTH. FREQ			X	+	+	+	X	X	.	X	+	+	X	X

6-G-31. BROWN CREEPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.Z	?	?	.	.	.Z	AZ	AZ	.Z	AZ
36	-	-	?	A.	AZ	AZ	.Z	.	AZ	AZ	A.	AZ	.Z	AZ
37	-	-	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	A.
AV MONTH. FREQ			+	X	X	X	X	+	X	X	X	X	X	X

One was collected on 24 March 1935, 27 December 1936, and 4 April 1937.

6-G-32. WINTER WREN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	.Z	?	?	?	?	?	?	A.	?	?	?	?
35	-	-	?	.	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
36	-	-	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
37	-	-	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	X	X

On 13 August 1934, two adults were seen together with two young away from the nest; the adults were feeding the young.

On 27 July 1936, a family with three young were seen away from the nest.

6-G-33. AMERICAN DIPPER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
34	-	-	?	?	?	?	?	?	?	?	?	?	.Z	.Z
AV MONTH. FREQ			?	?	.	?	?	.	.	.	.	.	+	+

6-G-34. KINGLET SPP.

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	AZ	AZ	.Z	.Z	A.	A.	AZ	.	.	AZ	A.
36	-	-	?	A.	AZ	A.	.	.	A.	.Z	AZ	AZ	AZ	AZ
37	-	-	AZ	AZ	AZ	AZ	AZ	.	AZ	.Z	AZ	AZ	AZ	AZ
AV MONTH. FREQ			X	X	X	X	X	+	X	X	X	X	X	X

Most, if not all, of these records may have been Golden-crowned Kinglets. Since these records were only identified as kinglets, it is most accurate to simply list these records as kinglets.

GOLDEN-CROWNED KINGLET

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	.	AZ	?
36	-	-	?	?	?	?	?	?	?	?	?	?	?	?
37	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
AV MONTH. FREQ			?	?	?	?	?	?	?	+	?	?	+	?

One was collected on 16 August 1937. Most, if not all, of the kinglet spp. records were probably Golden-crowned Kinglets.

RUBY-CROWNED KINGLET

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	?	?	?	?	?	?	?	?	?	AZ	?
36	-	-	?	?	?	?	?	?	?	?	?	?	?	?
37	-	-	?	?	?	.Z	?	?	?	?	?	?	?	?
AV MONTH. FREQ			?	?	?	+	?	?	?	?	?	?	+	?

One was collected on 25 April 1937.

A few of the kinglet spp. records may have been Ruby-crowned Kinglets.

6-G-35. WESTERN BLUEBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.	A.	?	.	.	.	.	.	.	.
AV MONTH. FREQ			?	?	.	+	?	.	.	.	.	.	?	?

The lack of sightings is remarkable because it is rather conspicuous and easily identifiable. Bluebirds do not appear to be as common here in the 1930's as was implied for western Oregon in Gabrielson and Jewett (1940:477).

6-G-36. SWAINSON'S THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/12	09/22	?	.	.	?	AZ	AZ	AZ	A.	.Z	.	.	.
36	05/10	09/02	?	?	.	.	AZ	AZ	AZ	.Z	A.	.	.	.
37	04/25	-	.	.	.	.Z	AZ	AZ	AZ	AZ	.	.	?	?
AV MONTH. FREQ			?	?	.	+	X	X	X	X	X	.	?	?

AV First=5/6 (4/25-5/12)

On 14 July 1935, one was seen with a worm or caterpillar in its bill that it was presumably taking to feed its young.

6-G-37. HERMIT THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
36	11/29	-	?	?	.	.	.	.	.	.	.	.	.Z	.
AV MONTH. FREQ			?	?	.	?	?	.	.	.	.	.	+	?

The lack of records for this species is misleading. These observers often reported "thrushes" but did not usually separate Hermit from Swainson's in fall and winter, so Bayer has not included these questionable fall and winter "thrush" records.

6-G-38. AMERICAN ROBIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
33	-	-	?	?	?	?	?	?	?	?	?	A.	?	?
35	03/02	08/15	?	.	AZ	?	A.	AZ	A.	A.	.	.	.	.
36	03/07	08/17												
36	11/08	11/08	?	?	AZ	AZ	AZ	A.	.Z	.Z	.	.	A.	.
37	02/27	08/25	.	.Z	AZ	AZ	AZ	AZ	AZ	AZ	.	.	?	?
AV MONTH. FREQ			?	+	X	X	X	X	X	X	.	+	+	?

AV First=3/3 (2/27-3/7) AV Last=8/19 (8/15-8/25)
AV First=11/8 AV Last=11/8

On 7 June 1936, a pair of adults and three

young were seen together away from the nest.

On 27 July 1936, a robin was seen flying with nesting materials in its bill.

6-G-39. VARIED THRUSH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	.Z	.Z	AZ	.Z	A.	AZ	AZ	.Z	AZ	.Z	.	A.
36	-	-	.Z	?	AZ	A.	AZ	AZ	AZ	A.	.Z	AZ	AZ	A.
37	-	-	AZ	.Z	AZ	AZ	AZ	A.	AZ	.	.Z	A.	?	?
AV MONTH. FREQ			X	X	X	X	X	X	X	X	X	X	+	X

On 29 May 1937, an adult and a fledgling were seen together away from the nest.

6-G-40. CEDAR WAXWING

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
33	-	-	?	?	?	?	?	?	?	.Z	?	?	?	?
AV MONTH. FREQ			?	?	.	?	?	.	.	+	.	.	?	?

On 24 and 31 August 1933, a nest with four eggs was being incubated in a nest in a small fir tree near the Little Salmon River. The nest had primarily a moss base and was lined with "spanish" moss lichen. Black hairy lichen was at the base of the nest near the eggs. On September 8, the nest was deserted.

6-G-41. SOLITARY VIREO

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	08/15	?	.	.	?	?	.	.	A.	.	.	.	.
AV MONTH. FREQ			?	?	.	?	?	.	.	+	.	.	?	?

One was collected on 15 August 1935.

6-G-42. ORANGE-CROWNED WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	05/02	-	?	?	.	.	A.	.	.	.	.	.	.	.
37	04/25	-	.	.	.	.Z	A.	.	.	.	.	.	?	?
AV MONTH. FREQ			?	?	.	+	X	.	.	.	.	.	?	?

One was collected on 25 April and 2 May 1937.

6-G-43. YELLOW WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	04/18	04/18												
36	07/20	07/20	?	?	.	.Z	.	.	.Z	.	.	.	.	.
37	05/29	06/07												
37	08/07	08/07	.	.	.	.	.Z	A.	.	A.	.	.	?	?
AV MONTH. FREQ			?	?	.	+	+	+	+	+	.	.	?	?

6-G-44. HERMIT WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.	?	?	.Z	.	.	.	.	.	.
36	05/10	-	?	?	.	.	AZ	AZ	A.	.	.	.	.	.
37	05/22	08/07	.	.	.	.	.Z	AZ	AZ	A.	.	.	?	?
AV MONTH. FREQ			?	?	.	?	X	X	X	+	.	.	?	?

On 24 May 1936, one was shot that was about 80 ft (24 m) high in a hemlock. Bill length=1.0 cm, wing length=6.8 cm, total length=13.8 cm, and tail length=4.8 cm. The bill was black with a dark gray streak on the side edge of the bill. The bill was narrow and sharply pointed. The wings were dark grayish-brown with white bars formed by the tips of short feathers. The feet were dark gray above and yellow on their underside. The tail was dark grayish-brown above, white beneath. The back was gray with darker feather tips that resulted in a speckled effect extending up onto the back of the head. The iris was black. From the throat on under the body, the color was very light gray.

Another was collected on 7 August 1937.

6-G-45. WILSON'S WARBLER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	04/27	08/25	?	.	.	.Z	AZ	AZ	AZ	AZ	.	.	.	.
36	05/10	09/10	?	?	.	.	AZ	AZ	AZ	A.	A.	.	.	.
37	04/25	09/09	.	.	.	.Z	AZ	AZ	AZ	.	A.	.	?	?
AV MONTH. FREQ			?	?	.	X	X	X	X	X	X	.	?	?

AV First=5/1 (4/25-5/10) AV Last=9/4 (8/25-9/10)

On 8 July 1935, two adults and one immature were seen together. Presumably, they were a family group away from the nest.

One was collected on 15 and 22 August 1935.

6-G-46. WESTERN TANAGER

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	07/30	07/30	.	.	.	.	.	.	.Z	.	.	.	?	?
AV MONTH. FREQ			?	?	.	?	?	.	+	.	.	.	?	?

On 30 July 1937 an adult and a fledgling were seen together away from any nest.

6-G-47. RUFOUS-SIDED TOWHEE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	-	-	A.	?	.	.	.	.	A.	.	.	.	AZ	A.
37	-	-	A.	AZ	.	.Z	A.	.	.	.	.	.Z	?	?
AV MONTH. FREQ			X	+	.	+	+	.	+	.	.	+	+	+

6-G-48. CHIPPING SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	07/05	07/05	?	?	.	.	.	.	A.	.	.	.	.	.
37	07/02	07/02	.	.	.	.	.	.	A.	.	.	.	?	?
AV MONTH. FREQ			?	?	.	?	?	.	X	.	.	.	?	?

6-G-49. SONG SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	AZ	.Z	A.	?	AZ	.	AZ	.	.	.	A.
36	-	-	?	.Z	AZ	AZ	A.	.	.Z	AZ	AZ	.Z	AZ	AZ
37	-	-	AZ	AZ	AZ	AZ	A.	AZ	AZ	A.	A.	AZ	?	A.
AV MONTH. FREQ			+	X	X	X	X	X	X	X	X	X	+	X

Some were collected on 31 March and 13 April 1935 and 22 March 1936.

6-G-50. GOLDEN-CROWNED SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	05/02	05/09	.	.	.	.	A.	.	.	.	.	.	?	?
AV	MONTH.	FREQ	?	?	.	?	+	.	.	.	.	.	?	?

One was collected on 2 May 1937.

6-G-51. WHITE-CROWNED SPARROW

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	-	-	?	?	.	.	A.	.	.	AZ	A.	.	.	.
37	04/18	10/24	A.	.	.	.Z	A.	A.	AZ	.Z	AZ	.Z	?	?
AV	MONTH.	FREQ	+	?	.	+	X	+	+	X	X	+	?	?

On 9 August 1936, an adult and four fledglings were seen together away from the nest.

Two were collected on 9 May 1937, and one was collected on 15 September 1937.

6-G-52. DARK-EYED (Oregon) JUNCO

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	04/07	.Z	.Z	.Z	A.	?	.	.	.	.	.	.	.Z
36	-	-	?	?	.	.	.	.	.	.	.	.	.Z	A.
37	09/19	05/02	AZ	AZ	.	AZ	A.	.	.	.	AZ	AZ	AZ	?
AV	MONTH.	FREQ	X	X	+	X	+	.	.	.	+	+	X	X

6-G-53. RED-WINGED BLACKBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	No Records		?	.	.	?	?	.	.	.	.	.	.	.
36	05/15	05/30	?	?	.	.	AZ	.	.	.	.	.	.	.
37	04/11	04/11	.	.	.	A.	.	.	.	.	.	.	?	?
AV	MONTH.	FREQ	?	?	.	+	+	.	.	.	.	.	?	?

6-G-54. WESTERN MEADOWLARK

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/26	05/26	?	.	.	?	.Z	.	.	.	.	.	.	.
AV	MONTH.	FREQ	?	?	.	?	+	.	.	.	.	.	?	?

6-G-55. BREWER'S BLACKBIRD

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.Z	?	?	.	.	.	.	.	A.	.
36	-	-	?	?	A.	AZ	AZ	AZ	.	.	.	.	.	.
37	-	-	.	.Z	A.	AZ	AZ	A.	A.	.	.	.	?	?
AV	MONTH.	FREQ	?	+	X	X	X	X	+	.	.	.	+	?

On 10 May 1936, a nest with five eggs was being incubated.

6-G-56. NORTHERN (Bullock's) ORIOLE

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	05/19	06/01												
35	08/01	08/01	?	.	.	?	.Z	A.	.	A.	.	.	.	.
36	06/08	06/08												
36	08/17	08/17	?	?	.	.	.	A.	.	.Z	.	.	.	.
37	06/07	06/25	.	.	.	.	.	AZ	.	.	.	.	?	?
AV	MONTH.	FREQ	?	?	.	?	+	X	.	X	.	.	?	?

AV First=6/2 (5/19-6/8) AV Last=6/11 (6/1-6/25)
AV First=? (8/1-8/17) AV Last= ? (8/1-8/17)

The following numbers were counted in 1935: two on 19 May, eight on 26 May, and two on 1 June. On 8 June 1936, two were observed; and on 18 and 25 June 1937, four were found each day.

Gabrielson and Jewett (1940:527) only list one record for the Oregon Coast in Coos County. These Tillamook County records indicate that these orioles may have been commoner in the 1930's than Gabrielson and Jewett thought. However, Reed Ferris did not report them near Beaver in Tillamook County in the 1930's (Bayer and Ferris 1987).

6-G-57. PURPLE FINCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	-	-	.	.	.	.Z	.	.	.	.	.	.	?	?
AV	MONTH.	FREQ	?	?	.	+	?	.	.	.	.	.	?	?

A male and female was collected on 25 April 1937.

6-G-58. RED CROSSBILL

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.	.	?	?	.	A.	A.	.	.	A.	AZ
36	-	-	A.	?	A.	.	.	AZ	AZ	AZ	AZ	AZ	AZ	.Z
37	-	-	.Z	.Z	.Z	A.	AZ	.Z	AZ	.Z	AZ	.Z	?	AZ
AV	MONTH.	FREQ	X	+	X	+	+	X	X	X	X	X	X	X

6-G-59. PINE SISKIN

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
35	-	-	?	.Z	AZ	AZ	?	.	.Z	.	.	A.	.	.
36	-	-	?	?	.	A.	.	.	.	.	.	.	.	.
37	-	-	.	.Z	.	A.	.	.	.	.	.	A.	?	?
AV	MONTH.	FREQ	?	X	+	X	?	.	+	.	.	X	?	?

6-G-60. AMERICAN GOLDFINCH

Yr	First	Last	Ja	Fe	Mr	Ap	My	Jn	Jl	Ag	Sp	Oc	Nv	De
37	04/18	09/09	.	.	.	.Z	AZ	A.	.	.	A.	.	?	?
AV	MONTH.	FREQ	?	?	.	+	+	+	.	.	+	.	?	?

****

Chap. 7. 1985-1990 RECORDS AT 2,500-2,800 FT IN LINCOLN COUNTY BY BAYER AND OTHERS

****

7-A. INTRODUCTION

Because of the lack of bird observations above 2,500 ft (762 m) in Lincoln County, Bayer initiated a few afternoon field trips in 1985 to various sites on Saddle Bag Mountain, particularly Lost Prairie (Fig. 7.1). He chose Saddle Bag Mountain because it includes the tallest point in Lincoln County (3,359 ft; 1,024 m) and chose Lost Prairie because the name sounded intriguing. During these trips, Bayer was joined by several other people (Table 7.1).

Saddle Bag Mountain is a broad mountain stretching over several sections (Fig. 7.1). Macnab et al.'s Station (Chap. 2) is on the northern edge, and Saddle Bag Mountain has several peaks above 3,000 ft (914 m)(Fig. 7.1). It is at the corner of the Stott Mountain, Dolph, Midway, and Warnicke Creek 7.5' quadrangles.

Bayer estimated elevations on Saddle Bag Mountain using topographic maps, and, in general, he found that areas above about 2,500 ft seemed a lot different than areas near sea level for three reasons. First, noble fir and other vegetation characteristic of the Canadian Life Zone such as Pacific silver fir were common above 2,500 ft. Additionally, in his visits to this area and to the Oregon State University Herbarium, Jim Gerdemann noted that the southern extent of several alpine plants seemed to be in the Lost Prairie area of Saddle Bag Mountain. A second major difference was that exposed wood in fallen trees and stumps was bleached white from the sun at high elevations (Figs. 7.2-7.4), but mosses, fungi, and lichens quickly cover exposed wood near sea level. Another major difference was that birds seemed to be much scarcer above 2,500 ft than near sea level. Besides the papers about Saddle Bag Mountain by Macnab and Dirks-Edmunds, Hines (1971) has also done some research there.

Because much of Saddle Bag Mountain is forested or covered with brush like other Coast Range mountains (Fig. 7.2), people familiar with mountains in the Cascades may consider mountains in the Coast Range as hills. Nevertheless, the vegetation above 2,500 ft in the Coast Range can be similar to that at much higher elevations in the Cascades (section 1-B), so it would be a mistake to think that birds may not be influenced by elevation in the Coast Range (sections 1-B and 2-F-4).

In this Chapter, information about each individual area is given separately: Jeeter Prairie in section 7-D, Lost Prairie in section 7-E, and other areas in section 7-F.

****

7-B. METHODS AND SHORTCOMINGS

There are a maze of gravel logging roads in the area, and it is easy to become lost while trying to go to Lost Prairie. In June 1985, we parked at Point A in Fig. 7.1 because we could drive there in a car, and in September 1985 we drove to near the 3,359 ft (1,024 m) peak of Saddle Bag Mountain in a pickup. But on most other occasions we parked a car at or near Point B in Fig. 7.1 and hiked towards Lost Prairie because the road was impassable from severe rutting and road damage between Point B and the Quarry (Fig. 7.1) or from snow (March 1985).

Each observer (Table 7.1) had binoculars during observations. The duration of observations, if known, is given in Tables 7.2-7.3.

There are many shortcomings to our observations. First, we had too few observations (especially during the nonbreeding season) to establish what birds were present at these areas (Table 7.1). Second, our observations were all in the afternoon when birds are often much less conspicuous visually or aurally than in the early morning, so we could have missed many bird species. Third, our observations were not consistently over the same route, so the sizes of our observation areas were variable. Fourth, we were not familiar enough with the area to know where to find the birds that were present. Fifth, we did most of our observations while hiking, so that some warier species may have eluded us. Finally, Bayer was not skilled in identifying terrestrial birds by call, so more skilled observers may have been able to detect more species.

****

7-C. GENERAL RESULTS AND DISCUSSION

Clearly, more observations would be helpful in determining what birds are present at these areas. Nevertheless, there are enough observations to indicate several items of interest. For example, Common Snipe seemed to nest at Jeeter and Lost Prairies, and we have no records of their nesting elsewhere in Lincoln County. Further, crows, European Starlings, House Sparrows, House Finches, or Brown-headed Cowbirds were absent, although they are regularly present below 1,000 ft in many areas of Lincoln County.

There also appears to be a great seasonal increase in bird diversity in summer with only a few species found in March (Tables 7.2 and 7.3); this is not surprising because when we visited in March we hiked in on packed snow, so the climate

here is much colder than at sea level. But more observations are needed to confirm the low bird diversity in winter.

****

7-D. JEETER PRAIRIE

Location: T7S, R9W, Section 3
Area Studied: about 1 ac (0.4 ha)
Habitat(s): Freshwater Marsh
Elevation: about 2,640 ft (805 m)
Distance to Coastline: 11.2 mi (18.1 km)

The Area Studied at Jeeter Prairie is roughly estimated from topographic maps. At this prairie, there were a few dead snags in a small lake backed up behind what appeared to be a beaver dam, and there was an adjacent sedge marsh. The surrounding area had been logged, and there were few trees visible above the bushes. This prairie is very exposed to winds coming from the northwest, which would often happen in summer.

Only about 60 minutes during the afternoon of 30 June 1985 were spent observing, and only the following species were recorded: Red-winged Blackbird, calling Common Snipe, Tree and Violet-green swallows, Pileated Woodpecker, and Swainson's Thrush.

****

7-E. LOST PRAIRIE

Location: T6S, R9W, Section 35 &
T7S, R9W, Section 2
Area Studied: about 6.7 ac (2.7 ha)
Habitat(s): Freshwater Marsh
Elevation: about 2,640 ft (805 m)
Distance to Coastline: 12.1 mi (19.6 km)

The acreage for the Area Studied at Lost Prairie is based on a very rough estimate from 7.5' topographical maps.

Lost Prairie is a large swamp or bog that is the headwaters of the Salmon River, which flows eastward from it (Fig. 7.1). Lost Prairie is covered with sedges and "islands" of shrubbery that included rhododendrons, scrubby western white pines, small trees, and dead snags on drier sites (Figs. 7.3-7.5). The prairie was dissected by small creeks or channels that flowed into the creek that was the Salmon River. On some of the drier sites at the eastern edge, there were remnants of some small cabin foundations (see Macnab 1958:23-24) and also at least two old, weathered wooden Wood Duck nest boxes still attached to dead trees. The surrounding part of Saddle Bag Mountain had been logged with many young trees growing along the northern edge (Figs. 7.3-7.5). Bayer's recollection as he writes this in April 1994 is that the sedges were less than knee-high and that during one of our summer visits we found a solar-powered electric fence (to keep out black bears?) around active beehive boxes near the eastern edge of the Prairie.

Because it is in a basin, Lost Prairie is much more protected from the cold summer winds from the northwest than is Jeeter Prairie. However, Lost Prairie opens to the east, so it would be exposed to winds from the east.

The climate here is much colder than at low elevations along the Oregon Coast as 1 ft (0.3 m) or more of packed snow was on the ground here on 3 March 1985.

All Lost Prairie bird records are given in Table 7.2, but other birds may have been missed because of the brevity of our afternoon observations.

****

7-F. OTHER AREAS AT 2,500-2,800 FT

Location: T7S, R9W, Sections 2, 3, and 11
Area Studied: >10 ac (>4 ha)
Habitat(s): Shrub/Young Forest
Elevation: about 2,500-2,800 ft (762-853 m)
Distance to Coastline: 12.1-12.8 mi (19.6-20.7 km)

These observations were usually made while walking from Point A or Point B along a gravel road and then hiking cross-country to Lost Prairie, although occasionally we observed birds to Jeeter Prairie or to the 3,359 ft peak of Saddle Bag Mountain (Fig. 7.1). Except for the 26 August 1990 trip when Terry Morse used his altimeter to estimate elevation, Bayer estimated elevations using 7.5' topographical maps.

All these observations were made in a logged area with some widely scattered trees or groves of trees, some of which Bayer roughly estimated as 15-30 ft (5-9 m) high. There were lots of shrubs and bushes that limited visibility near the ground. On 3 March 1985, there was 1 ft (0.3 m) or more of packed snow on the ground here.

On 6 June 1987, we heard a coyote calling and saw at least 20 elk.

All our bird records for this general area are in Table 7.3. Note that we undoubtedly missed some birds because observations were always in the afternoon when birds may have been inconspicuous.

Fig. 7.1. Study areas on Saddle Bag Mountain (=Saddleback Mountain, see McArthur 1982:641-642) for 1985-1990 observations by Bayer and others. Note that this Mountain has several peaks that are 3,000 ft (914 m) or higher. Macnab et al.'s Station (Chap. 2) and Trail M (Chap. 3) are included to show their location relative to 1985-1990 observations in Chap. 7; see Fig. 2.1 for other study areas by Macnab and others in this area.

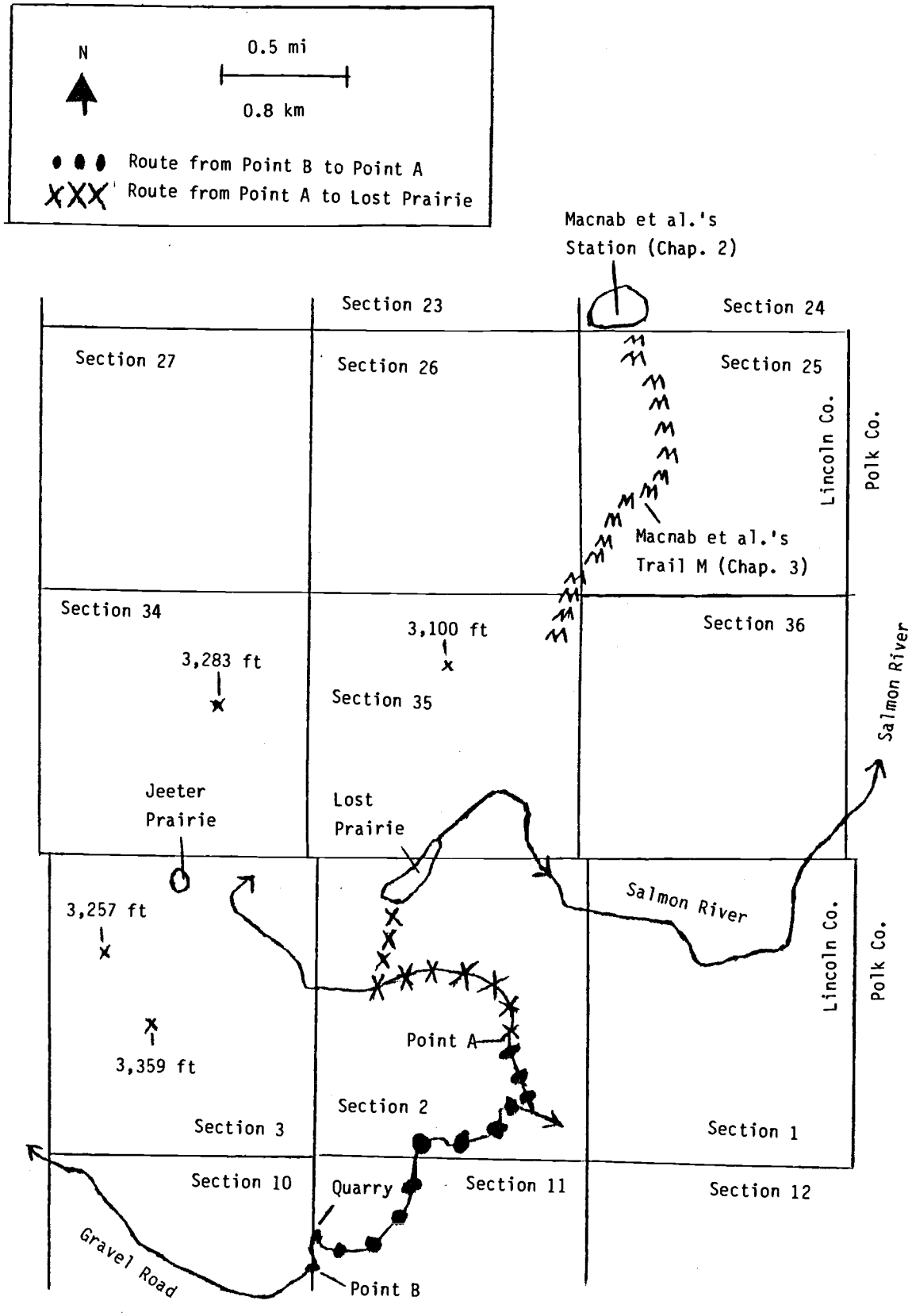

Fig. 7.2 (above). View eastward from logging road between Point A and Lost Prairie (Fig. 7.1). In the distance are partially forested mountains that look like many of the mountains (including Saddle Bag Mountain) in the Coast Range. In the middleground, young trees have not yet obscured the bleached white stumps that show up as white specks. In the foreground are three young noble firs. This was photographed with a "normal," 1x lens on 26 September 1990.

Fig. 7.3 (below). View of part of Lost Prairie. The foreground is a sedge-covered bog. Barely distinguishable at the left edge is a small "island" with a scrubby tree that is slightly higher and drier than the surrounding bog; several of these "islands" of various sizes are scattered throughout Lost Prairie. The bleached white snags and live trees in the middleground are at the edge of Lost Prairie on slightly higher ground. In the background is a part of Saddle Bag Mountain with young trees that forms the northern edge of the Lost Prairie basin (Fig. 7.1). This was photographed with a "normal," 1x lens on 26 September 1990.

Fig. 7.4 (above). Another view of part of Lost Prairie. The foreground is boggy and covered with sedges. The bald, light-colored, somewhat crescent-shaped area towards the center is a raised rocky area covered with lichens; remnants of a cabin's foundations were near this bald. Also on this slightly raised area are dead trees bleached white, live trees, and rhododendrons. The tree line along the left center of the photo is a part of Saddle Bag Mountain with young trees that forms the northern edge of the Lost Prairie basin (Fig. 7.1). This was photographed with a "normal," 1x lens on 26 September 1990.

Fig. 7.5 (below). Another view of part of Lost Prairie. The foreground is a sedge covered bog, and the left edge shows a slightly raised area with live trees and dead snags. The line rising from left to right in the middleground is a part of Saddle Bag Mountain that forms the northern edge of the Lost Prairie basin (Fig. 7.1) and is covered with young trees. This was photographed with a "normal," 1x lens on 26 September 1990.

Table 7.1. Observation sites and observers during 1985-1990 expeditions.

	1985						1987	1990
	3/3	5/5	6/1	6/16	6/30	9/8	6/6	8/26
Site								
Jeeter Prairie	.	.	.	.	X	.	.	.
Lost Prairie	X	.	X	X	X	X	X	X
Other Areas	X	X	X	X	X	X	X	X
Observer(s)								
Bayer, Range	X	X	X	X	X	X	X	X
Faxon, Darrel	.	.	.	.	.	.	X	.
Gerdemann, Jim & Janice	.	.	X	X	X	.	.	.
Morse, Terry	.	.	.	.	.	.	.	X
Paszkowski, Cindy	.	.	.	X	.	.	.	.
Pickering, Phil	X	.	.	.	.	X	.	.
Van Horn, Bea	.	X	.	.	.	.	.	.

Table 7.2. Casual bird observations at Lost Prairie (Fig. 7.1). Observations were less than 60 minutes long on 3 March and 1 June 1985 and were less than 120 minutes long on other days; all times are in Pacific Standard Time (PST) by the 24 hour clock (e.g., 1 PM=1300 and 2 PM=1400). X=taxon observed, .=taxon not recorded, but it may have been missed.

Year---------->	1985					1987	1990
Date---------->	3/3	6/1	6/16	6/30	9/8	6/6	8/26
Time of Day---------->	PM	PM	1430-1630	PM	1330-1405	1400-1600	1450-1630
Mallard	.	.	7a	.	.	.	.
Turkey Vulture	.	.	X	.	.	.	.
Red-tailed Hawk	.	.	.	.	.	.	1
Blue Grouse	.	X	.	.	.	.	.
Virginia Rail	.	X	X	X	.	.	.
"peep"	.	.	.	.	.	.	1b
Common Snipe	.	.	Xc	.	.	Xc	.
No. Pygmy-Owl	X	.	.	.	.	.	.
Common Nighthawk	.	.	X	.	.	.	.
Vaux's Swift	.	.	X	.	.	X	.
hummingbird spp.	.	.	.	.	.	Xd	1
Black-chinned Hummingbird	.	.	.	.	.	?d	.
Rufous Hummingbird	.	X	.	.	.	?d	.
Downy Woodpecker	.	X	.	.	.	.	.
Hairy Woodpecker	.	.	X	.	.	.	X
Northern Flicker	.	.	X	.	.	X	X
Pileated Woodpecker	.	X	.	.	.	.	.
flycatcher spp.	.	X	X	.	.	?	X
Olive-sided Flycatcher	.	?	?	.	.	X	.
Purple Martin	.	.	.	.	.	?e	.
Tree Swallow	.	X	X	X	.	X	.
Violet-green Swallow	.	X	X	.	.	X	.
Barn Swallow	.	.	2	.	.	.	.
Steller's Jay	.	X	X	.	X	X	.
Common Raven	.	.	X	.	.	.	X
Red-breasted Nuthatch	.	.	X	.	.	.	.
House Wren	.	.	.	.	.	X	.
Winter Wren	.	X	.	.	X	.	.
Golden-crowned Kinglet	.	X	.	.	.	.	.
American Robin	.	X	X	X	.	.	.
warbler spp.	.	X	.	.	.	.	.
Wilson's Warbler	.	.	.	.	.	.	1f
Song Sparrow	.	X	X	.	X	.	X
White-crowned Sparrow	.	X	X	.	.	.	.
Red-winged Blackbird	.	X	X	X	.	X	X
Total Taxa/Visit	**1**	**16**	**19**	**4g**	**3g**	**11**	**10**

a Female Mallard with six ducklings.
b A small shorebird with a whitish breast and white flanks flushed from the marsh and flew 50 ft or more above the marsh; it seemed to look and fly like a Western Sandpiper.
c On 6/16/1985, Common Snipe were heard winnowing and calling. On 6/6/1987, they were winnowing and calling during 1515-1600 PST and again at 1638, but not from 1600-1635.
d The unidentified hummingbird appeared to have a white belly and a black chin, but it was not seen long enough to determine if it was a Black-chinned Hummingbird.
e The Purple Martin identification was hurried and may have been in error.
f One male was seen.
g Observations were very cursory; there were undoubtedly many more taxa present.

Table 7.3. Casual bird observations on Saddleback Mountain at elevations of about 2,500-2,800 ft. Except for 6/30/1985 and 8/26/1990, observations were less than 120-180 minutes long; all times are in Pacific Standard Time by the 24 hour clock (e.g., 1 PM=1300). X=taxon observed, .=taxon not recorded but it may have been missed.

Year---------->	1985.....						1987	1990.....
Date---------->	3/3	5/5	6/1	6/16	6/30	9/8	6/6	8/26.....
Time of Day---------->	PM	PM	PM	PM	1230-1600	1300-1330 & 1405-1600	1300-1400	1315-1450 & 1630-1800
Turkey Vulture	.	.	.	.	.	.	X	X
Red-tailed Hawk	.	.	.	.	.	.	.	1
Blue Grouse	.	X	.	.	6a	?b	X	.
Mountain Quail	.	.	.	.	.	?b	X	.
Band-tailed Pigeon	.	.	X	.	X	X	X	.
Common Nighthawk	.	.	.	X	.	.	X	.
Rufous Hummingbird	.	.	.	X	X	.	.	.
Downy Woodpecker	.	.	.	.	.	?c	X	.
Hairy Woodpecker	.	.	.	.	.	?c	.	.
Northern Flicker	.	X	X	.	X	X	X	X
Pileated Woodpecker	.	.	.	.	X	.	.	.
Olive-sided Flycatcher	.	.	.	X	X	.	.	.
Western Wood-Pewee	.	.	.	.	.	.	X	.
Willow Flycatcher	.	.	.	.	X	.	.	.
Pacific-slope Flycatcher	.	.	.	.	.	.	X	.
Tree Swallow	.	.	.	.	.	.	X	.
Violet-green Swallow	.	.	.	X	.	.	.	.
Gray Jay	X	.	.	.	.	.	.	.
Steller's Jay	.	X	.	X	X	X	X	X
Common Raven	X	X	.	X	.	X	.	.
chickadee spp.	X	.	.	.	.	.	.	.
Black-capped Chickadee	?	.	.	.	.	X	.	.
Chestnut-b. Chickadee	?	.	.	.	.	X	.	>10
Bewick's Wren	.	.	.	.	.	.	X	.
Winter Wren	X	X	X	X	X	X	.	.
Golden-crowned Kinglet	X	X	.	X	.	X	.	X
Ruby-crowned Kinglet	.	.	.	.	.	X	.	.
Western Bluebird	.	.	.	Xd	Xd	.	X	.
Swainson's Thrush	.	.	.	X	X	.	X	.
American Robin	.	.	.	X	X	.	X	X
Varied Thrush	.	X	X	.	X	.	X	.
Wrentit	.	.	.	.	.	.	X	.
Cedar Waxwing	.	.	.	.	.	.	X	>5
warbler spp.	.	X	.	.	.	.	.	.
Orange-crowned Warbler	.	?	.	.	.	X	X	.
MacGillivray's Warbler	.	?	.	.	.	.	X	.
Wilson's Warbler	.	?	.	X	.	X	.	X
Rufous-sided Towhee	.	.	.	X	.	.	X	.
Song Sparrow	X	.	.	X	X	X	X	.
White-crowned Sparrow	.	.	.	X	Xe	.	X	.
Dark-eyed Junco	.	X	.	X	X	>20	X	>20
Purple Finch	.	.	.	.	.	.	X	.
Pine Siskin	.	.	.	.	.	X	X	.
Total Bird Taxa/Visit	**6**	**9**	**4f**	**16**	**16**	**16**	**26**	**10**

a A female Blue Grouse was accompanied by five flying young.
b A covey of quail or grouse flew away too explosively to be identified.
c Downy or Hairy Woodpecker.
d Western Bluebird: on 6/16 a male and a female were each carrying insects to a nesting hole in a small snag; on 6/30, a male and a female were together with flying fledged young away from the snag.
e An adult White-crowned Sparrow was with fledglings away from the nest.
f Observations on 6/1/1985 were very cursory; there were undoubtedly many more taxa present.

****

ACKNOWLEDGMENTS

Bayer is grateful to James Macnab, Jane Claire Dirks-Edmunds, Dorothy McKey-Fender, and the Linfield College students whose pioneering observations form the core of this article. He also thanks all the people who accompanied him to Saddle Bag Mountain to make observations in 1985-1990.

****

LITERATURE CITED

Bailey, F. M. 1902. Handbook of birds of the western United States. Houghton-Miflin, Boston.

Bailey, V. 1936. The mammals and Life Zones of Oregon. No. Am. Fauna No. 55.

Bayer, R. D. 1993. Journal of Oregon Ornithology: purpose, publishing issues, baseline and site-specific data, Tolerable Observation Effort (TOE), Frequencies, and Shortcomings. Journal of Oregon Ornithology 1:1-34.

Bayer, R. D. and R. W. Ferris. 1987. Reed Ferris' 1930-1943 bird banding records and bird observations for Tillamook County, Oregon. Studies in Oregon Ornithology No. 3.

Bishop, C. T. 1984. How to edit a scientific journal. ISI Press, Philadelphia.

Dickson, J. G., R. N. Conner, and K. T. Adair. 1978. Guidelines for authorship of scientific articles. Wildl. Soc. Bull. 6:260-261.

Dirks, J. C. 1940. Comparison of an Oregon Douglas fir-hemlock community with an Illinois oak-hickory community. Bull. Ecol. Soc. America 21:34. (Bayer has not seen this; it is cited in Dirks 1941:161. It is not at the Hatfield Marine Science Center Library.)

Dirks, J. C. 1941. Comparison of Douglas fir-hemlock and oak-hickory biotic communities. Ph.D. Thesis, Univ. of Illinois, Urbana. (QH541.5 F6 D51 at the Oregon State University Hatfield Marine Science Center Library, Newport, Oregon.)

Dirks-Edmunds, J. C. 1947. A comparison of biotic communities of the cedar-hemlock and oak-hickory associations. Ecol. Monogr. 17:237-260.

Egger, M. 1980. Bibliography of Oregon ornithology: an updating for the years 1971-1977, with a revised cross-referenced list of the birds of Oregon. Oregon Field Ornithologists Special Publ. No. 1.

Faxon, D. and R. D. Bayer. 1991. Birds of the Coast Range of Lincoln County, Oregon. Vol. I: Birds of Thornton Creek. Studies in Oregon Ornithology No. 8.

Finch, D. M. 1991. Positive associations among riparian bird species correspond to elevational changes in plant communities. Can. J. Zool. 69:951-963.

Gabrielson, I. N. and S. G. Jewett. 1940. Birds of Oregon. Oregon State Monographs, Studies in Zoology No. 2. (Reprinted in 1970 by Dover Publications as "Birds of the Pacific Northwest.")

Hines, W. W. 1971. Plant communities in the old-growth forests of north coastal Oregon. M. S. Thesis, Oregon State Univ., Corvallis.

Hoffmann, R. 1927. Birds of the Pacific States. Houghton-Miflin, Boston.

Kendeigh, S. C. 1944. Measurement of bird populations. Ecol. Monogr. 14:67-106.

Llewellyn, B. and R. D. Bayer. 1994. Bird records for the Siletz/Logsden area of Lincoln County that are not given elsewhere. J. Oregon Ornithology 2:163-207.

Lyons, C. P. 1956. Trees, shrubs, and flowers to know in Washington. J.M. Dent & Sons, Toronto, Canada.

MacArthur, R. H. 1972. Geographical ecology: patterns in the distribution of species. Harper & Row.

Macnab, J. A. 1944. Faunal aspection in the Coast Range mountains of northwestern Oregon. Ph.D. Thesis, Univ. of Nebraska, Lincoln.

Macnab, J. A. 1958. Biotic aspection in the Coast Range mountains of northwestern Oregon. Ecol. Monogr. 28:21-54.

Marshall, D. B. 1992. Recollections: my first Malheur field trip with comments about Stanley G. Jewett and others. Audubon Warbler 56 (9)(Sept.):1, 13. Audubon Society of Portland, Oregon.

Massa, R. and A. Federigo. 1989. A new approach for compiling a winter bird atlas by means of point-counts. Ann. Zool. Fennici 26:207-212.

McArthur, L. L. 1982. Oregon geographic names, fifth edition. Oregon Historical Society.

Navarro S., A. G. 1992. Altitudinal distribution of birds in the Sierra Madre Del Sur, Guerrero, Mexico. Condor 94:29-39.

Schrock, F. and R. D. Bayer. 1994. Schrock's bird records for the Siletz/Logsden area of Lincoln County. J. Oregon Ornithology 2:208-225.

Scott, J. M., T. W. Haislip, Jr., and M. Thompson. 1972. A bibliography of Oregon ornithology (1935-1970), with a cross-referenced list of the birds of Oregon. Northwest Science 46:122-139

Stevens, G. C. 1992. The elevational gradient in altitudinal range: an extension of Rapoport's Latitudinal Rule to altitude. Am. Nat. 140:893-911.

Taverner, P. A. 1926. Birds of western Canada. Canada Dept. Mines, Victoria Mus. Bull. 41.

Taverner, P. A. 1934. Birds of Canada. Canada Dept. Mines, Canada Nat. Mus. Bull. 72.