
BACKGROUND OF THE BIRDS OF LINCOLN COUNTY PROJECT
AND RECOMMENDATIONS FOR OTHERS PLANNING SIMILAR PROJECTS

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ABSTRACT.--The impetus for this Project began in 1968-1973 with birders at the Marine Science Center (MSC). But in the past 10 or so years the focus has shifted to a county group, Yaquina Birders & Naturalists.

120 individuals or couples have each contributed 100 or more records with 51% of these being Lincoln County residents. The greatest contributor is Darrel Faxon with over 100,000 records.

I recommend that others do not do similar projects the way that I have done this one. In particular, I suggest that projects be narrowed to 1-5 years at most and that annual or biennial data reports be completed.

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CHAP. 1. INTRODUCTION, PURPOSE, METHODS, AND PROJECT COSTS

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1-A. INTRODUCTION

The purpose of this paper is to provide additional background to the Birds of Lincoln County Project, especially about the methods of acquiring records. A second purpose is to provide recommendations to others in doing such projects.

This paper is part of a three part series; in the other two papers, semimonthly records are listed by year (Bayer 1995b) or by species (Bayer 1995c). Bayer (1995c) also gives some limited results in analyzing

semimonthly records.

The published results from the "Birds of Lincoln County" Project is of two general types. One type includes records pooled for the entire County to determine semimonthly occurrence (e.g., Bayer 1992a,b; 1995b,c). The second type includes records for individual sites that are compiled and analyzed separately (e.g., Bayer 1991, Faxon and Bayer 1991).

1-B. HISTORY OF 1968-1994 LINCOLN COUNTY BIRDING GROUPS, LINCOLN COUNTY CHRISTMAS BIRD COUNTS, AND "BIRDS OF LINCOLN COUNTY" PROJECT

1-B-1. HISTORY OF 1968-1979 BIRDING GROUP

MSC ORIGIN.--At the Oregon State University (OSU) Marine Science Center (later known as the OSU Hatfield Marine Science Center [HMSC]) and the adjacent Oregon Department of Fish and Wildlife (ODFW) office, an informal group of birdwatchers aggregated in about 1968-1972. Four of them (Bob Olson, Warren Hanson, Peter Rothlisberg, and Gene Burreson) were known as the "G.-d. Birdwatchers" (ask Bob Olson of the HMSC for the origin of that name).

Others that became involved in this informal group in about 1970-1972 were Laimons Osis, Paul Reed, and John Fortune. I joined in 1973 as an OSU graduate student in Zoology and was the only one that formally studied birds. Several of us were also members of the Corvallis Audubon Society.

We communicated by word of mouth, since we saw each other in the halls of the MSC, which, at that time, was small enough that people that worked there could see each other regularly. This group did not have a name, dues, officers, newsletter, formal meetings, or constitution; nevertheless, it was a vibrant group.

MSC DAILY CHECKLIST.--Members of this group were not only interested in birdwatching but also in recording their observations, so that they could be used in learning about the birdlife of the area. Accordingly, someone (probably Peter Rothlisberg, according to Bob Olson) established a Daily Checklist form for each month for birds seen within 15 miles of the MSC. This form was used from January 1974 through November 1977. However, not everyone transcribed their notes onto this Checklist every month, so it didn't reflect all our bird records. I have the original copies of these Checklists, and Bob Olson may have photocopies.

FIELD TRIPS.--This informal group held monthly field trips in the morning, usually on the second or middle Saturday of the month. We often met at Sambo's (now the Apple Peddler Restaurant) in Newport for breakfast beforehand, where Laimons Osis would order pancakes with strawberries and whipped cream.

From February 1974 through April 1975, monthly field trips were made along Yaquina Estuary, and, from May 1975 through November 1977, Yaquina Head was added to the monthly trip. All field trip records were kept on modified MSC Daily Checklist data forms, of which I have the originals and Bob Olson may have photocopies.

ORIGIN OF NAME OF YAQUINA BIRDERS.--In 1974 and 1975, I compiled bird records for checklists for this group, which was listed as the "Yaquina Bay Bird Group" (section 1-B-4). This was a name of convenience, not a name chosen by the group, because we didn't need a name and didn't call ourselves anything.

In 1975-1976, the South Beach Marina was being planned. The original design was to fill the West Log Pond, south of the HMSC, and use it for a parking lot and for greater public access to Idaho Flats, the large embayment east of the HMSC. These plans resulted in five members of the informal group (Bob Olson, Paul Reed, Laimons Osis, John Fortune, and myself) deciding to acquire a formal group name and write a letter of protest as a group of individuals (not as HMSC or ODFW staff).

After a week of haggling over the name of the group and the wording of

the letter, a consensus developed to call the group "Yaquina Birders," and a letter of comment was sent (which is cited on p. A-19 of the May 1976 South Beach Marina Draft Environmental Impact Statement, DEIS). Whether this letter made any difference in changing the Marina plan is unclear, but, in any case, the plans in the DEIS allowed the West Log Pond (which is now used by the Oregon Coast Aquarium) (Bayer 1993c) to remain untouched. Accordingly, the "Yaquina Birders" did not write a letter commenting about the DEIS for the Final Environmental Impact Statement.

1977 BIRD LIST & GROUP DISBANDING.--In July 1977, a more polished "Birds of Lincoln County" checklist for Yaquina Birders was published (section 1-B-4), and this roughly coincided with the demise of the informal group at the HMSC/ODFW. The last monthly field trip with records was held in November 1977, although there may have been a few additional field trips. Also, the last MSC Daily Checklist with records was for November 1977.

The demise of this group probably arose because several members either moved out of the area (Peter Rothlisberg, John Fortune, and Gene Burreson) or stayed in the area but changed jobs and no longer worked at the HMSC/ODFW (Paul Reed and myself). Nevertheless, Paul Reed continued to be compiler for the CBC, which became the only formal group activity of HMSC and ODFW birders until late 1980.

1-B-2. HISTORY OF YAQUINA BIRDERS & NATURALISTS (YB&N)

FORMATION.--In the summer of 1980, Anna Kircher of Lincoln City became very interested in starting a naturalist's organization for all of Lincoln County, not just the HMSC and ODFW. She managed to persuade others of the need for such a group, and she, Paul Reed, Bob Olson, and myself served on a Steering Committee, with an organizational meeting on 23 September 1980.

This group was known as "Yaquina Birders," mainly because the name had been used before. Although "Lincoln County Birders" was considered, it was not chosen because it would be an inappropriate and confusing name if a group formed in Lincoln City. A Lincoln City group is a distinct possibility because of the long distance between Lincoln City and Newport, where most of the group's activities are at.

NEWSLETTER.--Because membership was spread over the County, communication by word of mouth was no longer sufficient to pass along news of field trips, so a newsletter was necessary. In October 1980, I began preparing the group's newsletter and have continued to do so since then. The name of the newsletter became "The Sandpiper" in December 1980; this name won by one vote over "The Wandering Albatross."

I wrote the field notes section for the newsletter from November 1980 through September 1985, Darrel Faxon was field notes editor from October 1985 through May 1992, and I have again been the field notes editor starting in June 1992. These field notes columns have not only communicated what was seen but have also encouraged people to observe and record bird records; these columns have thus been instrumental in the accumulation of bird notes for this Project.

EARLY INFORMAL STRUCTURE.--Since a newsletter costs money, dues were necessary from the beginning in late 1980. This group also differed from the earlier group in that monthly meetings were often held.

But in other ways, until 1985, Yaquina Birders was still remarkably unstructured, as there was no constitution, bylaws, or elected officers.

AUDUBON.--In the July 1981 meeting of Yaquina Birders, affiliation with the National Audubon Society was discussed and voted down because the group was too small to support the paperwork and other requirements demanded by Audubon.

CHANGE TO YB&N.--Also during the July 1981 meeting, changing the name to "Yaquina Naturalists" was heatedly discussed. The problem with "Yaquina Birders" is that it is narrow and doesn't reflect the interests of many members in areas of natural history other than birds. Further, it is difficult to have people give nonbird natural history programs or to get nonbirder naturalists join a group called Yaquina Birders.

Nevertheless, there was much resistance to change as Yaquina Birders had become traditional, and one woman objected to "Naturalists" because she felt that people would mistake naturalists for naturists (nudists)! After continued debate in which it was becoming apparent that Yaquina Birders would probably prevail despite fervent objections, Laimons Osis arrived late at the meeting, unaware of the conflict, and conciliated factions.

As a result, a compromise name "Yaquina Birders & Naturalists" was adopted with some thought that it might be changed to "Yaquina Naturalists" at a later date, which hasn't yet arrived. This name change has allowed the group to be more successful in attracting naturalists other than birdwatchers, although birdwatching continues to be the focus of the group.

CONSTITUTION.--In 1985, more formal structure was considered necessary, so a Constitution and Bylaws were presented in the May 1985 Sandpiper and passed during the June 1985 meeting. In October 1985, elections were held, and Laimons Osis was elected President and Bob Olson was elected Treasurer; they have been re-elected without opposition in each following year.

CLUB STATISTICS.--YB&N has grown from 26 members in December 1980 to 117 members in December 1984 and to 160 members in December 1991 (Table 1.10). After a sharp early increase in membership, the number of members in 1991-1994 has reached a plateau and about 15-21% of members drop out each year (Table 1.10). Meeting attendance has averaged 28-33 people since 1990 (Table 1.10).

In spite of the many members, the core group that keeps YB&N going in 1995 is from the HMSC/ODFW group of the early 1970's (Laimons Osis, Bob Olson, Paul Reed, and myself), so there has been a remarkable amount of continuity for over 20 years. But as the HMSC has grown in buildings and staff, the number of HMSC people active in YB&N has greatly diminished. Thus, the old camaraderie of shared sightings and field trips among HMSC staff that served as the original catalyst has vanished.

1-B-3. HISTORY OF CHRISTMAS BIRD COUNTS IN LINCOLN COUNTY

I have not found any evidence of a Christmas Bird Count (CBC) in Lincoln County prior to the December 1973 Yaquina Bay CBC that was initiated by OSU birders from Corvallis. Since then, Lincoln County birders have been very involved in the Yaquina Bay CBC.

Wayne Hoffman, an OSU graduate student from Corvallis, but who was previously from Lincoln County, was the compiler of the first two Yaquina Bay CBC's, and Bob Olson was the compiler for the next two CBC's. Paul Reed became the compiler for the January 1977 CBC and has been the compiler ever since.

In Lincoln City, I was the compiler for an unofficial CBC in January 1984, Phil Pickering was the compiler for unofficial and official CBC's in January and December 1985, Richard Smith of Portland was compiler for several counts in the 1990's, but there was no CBC in 1994.

In December 1993, Darrel Faxon was compiler for an unofficial CBC at Waldport.

The lack of more CBC's is because of a lack of compilers; in part, because there have been too few participants.

1-B-4. HISTORY OF "BIRDS OF LINCOLN COUNTY" PROJECT

Prior to 1973, the only compilations of Lincoln County records apparently

are Ira N. Gabrielson's and Stanley F. Jewett's unpublished index cards, which each did for Lincoln County as well as other Oregon counties. Each used his index cards in preparing Gabrielson and Jewett (1940). The records in their cards have been incorporated into Bayer (1995b,c), but they were not comprehensive, even for their time because they were mainly their own observations rather than an attempt to compile all records of all observers within Lincoln County. Further, their Lincoln County compilations are not widely available.

Beginning in 1973, I began compiling Lincoln County records as an outgrowth of my contact with other birders at the HMSC/ODFW. I started this Project because I (like others at the HMSC/ODFW) recognized that there were many talented birders living in or visiting Lincoln County whose observations weren't being compiled and used to learn about the birds present. I thought this was a terrible waste of talent, especially since "common knowledge" or available lists were often based on what someone guessed was present, rather than on actual observations. When I started, I didn't plan or imagine that I would still be compiling records more than 20 years later.

During this entire time, I have donated my time as a volunteer, and many observers have graciously shared their field notes. However, the volume of data has been too great for me to compile and edit it all, so that is the reason for the delays. The bottleneck in the process is having the time to analyze and compile records; the easy, fun part is going out and watching birds.

Since 1973, I have finished six "Birds of Lincoln County" compilations (Table 1.1); the first two acknowledge the Yaquina Bay Bird Group, the third, Yaquina Birders; and the rest, YB&N. With each successive compilation, the number of years incorporated has generally increased (Table 1.1).

1-C. MAJOR INDIVIDUAL/COUPLE CONTRIBUTORS

The greatest contributor of observations is Darrel Faxon, who has shared over 100,000 records from around his farm at Thornton Creek (Faxon and Bayer 1991:26; 1993); a record is one bird species noted during one observation. Although the total number of records for all other contributors has not been calculated, it appears that perhaps only 1-3 individuals or couples have contributed over 10,000 records, and none of them probably have over 25,000 records. While Faxon's observations have been important, the observations of others have been essential in providing records for the rest of Lincoln County.

There are 120 individuals or couples who have shared 100 or more records each (Table 1.2). 51% of these major contributors lived in Lincoln County when they made their observations (residents have a "*" in Table 1.2), but my impression is that residents contributed about 55-70% of the total records. In any case, the contributions of nonresidents (most of whom were not members of YB&N) were considerable.

24% of the major contributors made at least part of their observations as part of their duties while affiliated with an institution (Table 1.2), but many of these affiliated contributors also made many other observations that they also shared. Other major contributors were affiliated with an institution, but their bird records were not part of their duties.

It should also be mentioned that many people working for institutions were very helpful in sharing their field notes. However, others regarded their observations that were financed through tax dollars as their own private property that they were unwilling or unable to share.

1-D. METHODS OF ACQUIRING BIRD RECORDS: SOURCES OF INFORMATION & CONTRIBUTORS

1-D-1. IDENTIFYING INDIVIDUAL OR COUPLES TO CONTACT

It is essential to have a list of observers, in order to contact them or to search in museums or other institutions for their records.

One set of potential contributors were those with Lincoln County lists of

100 or more species that were periodically printed in "Oregon Listing Results" in Oregon Birds (e.g., Summers 1989). Other potential contributors were those with many Lincoln County records in the field notes sections of various publications (Table 1.3).

Because our group has been active since the early 1970's, we probably have learned of all recent residents that seriously record bird field notes. However, it has been a problem identifying residents prior to 1970 that may have made many observations. One way to discover them is to look through old newspapers looking for articles about birdwatching/birdwatchers (see footnote #11 in Table 1.4); unfortunately, this is very time consuming, and I haven't completed this even for Waldport papers.

Another way would be to contact the Portland Audubon Society (footnote #40 in Table 1.4) to see if they have old membership lists that give the residence of their members. Up until the 1970's, the Portland Audubon Society was the only Audubon society in Oregon, so Lincoln County residents that were very interested in birds may have been members of the Portland group. But I have not done this.

A third method to discover potential contributors of field notes prior to 1970 would be to look in field notes sections of pre-1970 newsletters of the Portland Audubon Society, Audubon Field Notes, etc. to find residents who contributed their field notes. I did this.

1-D-2. ACQUIRING BIRD RECORDS FROM INDIVIDUALS OR COUPLES

EARLY CONTRIBUTORS.--I began this project by compiling my own records, and then those of six friends at either the HMSC (Bob Olson, Pete Rothlisberg, and Gene Burreson) or ODFW (Laimons Osis, Paul Reed, and John Fortune) (see "@" in Table 1.2). These records were the basis of compilations #1 and #2 for the Yaquina Bay Bird Group in Table 1.1. Each compilation listed 89 species.

Darrel Faxon first contributed records in late July 1975 after completion of my second compilation, and, as time went on, more people volunteered their records with or without being asked (pre-March 1977 contributors are noted with a "#" in Table 1.2). Records were also gleaned from the "Chat," the newsletter of the Audubon Society of Corvallis. These records, along with the previous ones, formed the basis for compilation #3 in Table 1.1.

REQUESTS FOR FIELD NOTES TO INDIVIDUALS OR COUPLES.--Lincoln County field notes were also requested in the Chat or Oregon Birds in 1981-1983 (Table 1.5).

Although I sent some written requests for Lincoln County field notes in Sept. 1976, I didn't send many more until October 1981 (Table 1.6). In 1981, I prepared an instruction sheet and sample data form that were sent along with a cover letter requesting field notes. This instruction sheet evolved somewhat over time, and a photo-reduced copy of the 1990 version is in Fig. 1.1. A reduced blank data form sent with this request is shown in Fig. 1.2. In about 1983-1985, requests also included data sheets with species listed phylogenetically, and, in about 1988, the phylogenetic lists were replaced by data forms in which species were listed alphabetically. A reduced copy of p. 1 of the four-paged alphabetized data form sent with the 1990 instruction sheet is shown in Fig. 1.3.

From 1976 through 1994, I sent 228 written requests to 129 individuals or couples for field notes (Tables 1.6 and 1.7). These requests were sporadic (Table 1.6), and 93% were to nonresidents of Lincoln County (Table 1.7). I sometimes sent written requests to the same individual/couple for their field notes since their previous reply, and I also sometimes requested field notes again from individuals/couples who had not sent any field notes previously. Overall, residents had a higher response rate with field notes (78%) than nonresidents (42%) (Table 1.7), and I received no response at all from 47% of the nonresident individuals/couples (Table 1.7).

But the response rates for specific mailings was far lower than the overall rates. For example, I only received field notes from 18-29% of the

nonresident individuals/couples for each mailing during 1976-1994, and 64-74% did not respond (Table 1.8). Thus, while I would eventually get a response as a result of repeated mailings to an individual/couple, most would ignore a particular request.

County listers in Oregon Birds for Lincoln County were usually pretty good about sending notes; for instance, I requested field notes from 30 of the 38 individuals or couples with Lincoln County Lists in Summers (1989); 21 (70%) provided field notes. This is an excellent response and about equal to the 65% response that Summers received for his project (see p. 41 in Summers and Miller 1993).

Although there was a tendency for people to record only rarities, once they were contacted and recognized that records of even common species were desired, many people also provided field notes for common as well as rare species.

ON-LINE NOTES.--Beginning in December 1994, I have posted bird field notes from our YB&N newsletter on Oregon Birders On-Line (OBOL), an e-mail distribution list. In early 1995, I have also sent September 1994-current bird field notes from the newsletter to Lucy Biggs of Eugene, who put them on her WWW OBOL Home Page (<http://oregon.uoregon.edu/~lbiggs/obol.html>).

As a result of monitoring OBOL since September 1994, I have been getting about 2-5 field note reports per month that I doubt that I would get otherwise because some observers are reluctant to mail their observations.

1-D-3. ACQUIRING BIRD RECORDS FROM INSTITUTIONS

INTRODUCTION.--As noted in Table 1.2, many of the individual major contributors were affiliated with an institution and made observations as part of their duties. Most of these people I contacted individually, but I sometimes also contacted their institution. In the rest of this section, I discuss institutional sources of records.

SPECIMENS.--Many museums have bird specimens that were collected in Lincoln County (Bayer 1989:10-11). In all, I compiled about 2,000 Lincoln County records from these specimens (Bayer 1989:26); however, there may even be more specimens in museums (see footnote #66 at end of Table 1.4) because many museums did not respond or were unable to compile such records from their catalogues (Bayer 1989:10-11, 18-19).

REQUESTS FOR FIELD NOTES TO MUSEUMS, GOV. AGENCIES, ETC.--Many institutions store field notes; the problem is in locating where these field notes are and gaining access to them. My search of institutions listed in Table 1.4 was not as systematic as I would like because I was learning how to find field notes as I went along. I learned the hard way that it is important to know who made bird observations, where they lived, and who they worked for; with this information and creative searching it is sometimes possible to find field notes at an institution. But searching for "Lincoln Co. bird notes," per se, is usually fruitless because materials, if catalogued at all, are catalogued for individuals, not for a subject as narrow as the location of bird observations.

In particular, I wish I had a list of individuals who observed birds in Lincoln County when I started my search for field notes like I now have. I also wish I had always listed the dates of my visits to institutions, which staff members I talked to, and exactly which materials I saw. This is essential because a museum often has several collections that must each be searched. Also, staff can differ widely in their knowledge about what materials may be in their collection; one staff person will say that they don't have anything, while another knows exactly where the material is stored. Thus, searching can be very frustrating; I have often had the feeling that even though I failed to find field notes at an institution that they may still be there somewhere in a box, uncatalogued or unbeknownst to the staff person I

asked.

Repeat searches of the institutions that I have already contacted may reveal additional field notes because they may have acquired more materials or computerized records of their holdings, so that all their holdings can be more thoroughly searched.

1-D-4. ACQUIRING PUBLISHED BIRD RECORDS

A major source of Lincoln County field notes were published records (Table 1.3). These records were also useful in identifying individuals or couples that I should contact for more records because usually only the most "noteworthy" records are published.

Although many of the published series or papers are not widely available, I obtained many of them courtesy of the Oregon State University's HMSC Library and interlibrary loan.

1-E. POTENTIAL SOURCES OF MORE FIELD NOTES

I had hoped to compile all Lincoln County records, but this has not proved to be possible for four reasons. First, some records are accessible but are in distant museums that are not practical for me to visit. Second, some observers are unwilling to share their field notes--perhaps, some will change their mind. Third, some records may exist that I don't know of; in particular, pre-1970 observers in Lincoln County are largely unknown today, and if they are discovered, they or their families may have saved their field notes. Finally, some records have been destroyed; for example, several individuals have died and their notes were thrown out because survivors didn't know what else to do with them.

Institutions that may have more field notes are in Table 1.4; individuals that may have a significant amount of records are listed in Table 1.9.

1-F. FIELD NOTE DATABASE: HAND-WRITTEN INDEX CARDS

Starting in 1973, I compiled bird records for Lincoln County. In the beginning, I wrote the observer's name, observation date, location, and species onto 4 x 6 index cards. Then, probably in 1976, I wrote an instruction sheet for members of Yaquina Birders to fill in the date, habitat type, weather, location, observer, and species onto 4 x 6 index cards that had been mimeographed with these codes by staff at the ODFW office near the HMSC. Although some people filled out the cards, I transcribed most cards from the raw field notes of observers. Starting in 1977, I used only 3 x 5 index cards (e.g., Fig. 1.4).

In the beginning, each index card usually only held records for one date. Later, I sometimes put records for several dates on the same card, if they were either all in the first part (1-15th) or last part (16th and afterwards) of a month (Fig. 1.4), even if records were for different sites or different observers.

Some observers had so many observations (e.g., Darrel Faxon's 100,000+ records, see Faxon and Bayer 1991, 1993) that I condensed their records by simply noting the month, observer, site, and a list of species seen in the first or last part of a month (e.g., Fig. 1.4). Other observers had many observations for many sites; their records were sometimes pooled to just indicate the month, observer, and a list of species seen in the first or last part of the month. Later, if the records for each site were needed, the observer's original field notes were searched. In retrospect, it may have been better to write all information for each record on the index card, but this didn't seem feasible at the time, and an advantage of not doing so is that it eliminates the possibility of transcription error; the original field notes serves as the best source.

The numbers of birds recorded were usually not written on index cards, even if numbers may have been given in the original field notes because most

observations were incidental, not systematic. Numbers of birds recorded during incidental observations are often meaningless, or, even worse, can be misinterpreted. Numbers of birds, however, may be used in analyses of birds at specific sites, when the original field notes, not the index cards, will be used.

The same observations were sometimes received both from an observer and field notes sections of newsletters, Oregon Birds, or American Birds. To try to avoid some of this duplication, published records were sometimes not put on index cards, if I already had the observer's original notes. This was done because the original notes were considered to be more accurate, and sometimes there were errors (e.g., observation dates) in published accounts.

Because names of species, location, or observer were often abbreviated; because my handwriting is difficult to read, and because records were sometimes condensed (e.g., Fig. 1.4); I am probably the only person that can fully understand these index cards. This is unfortunate because other people can't fully use these index cards to continue this Project. Now, there are so many cards (about 11,000) that I don't have the time or energy to go back and make each card more usable by others. But on the other hand, I hadn't planned that this Project would go on so long, and there hasn't been anyone else volunteering to write, sort, or compile index cards, so I haven't had the incentive to make the cards more understandable to others.

In Chapter 2, I give some recommendations about doing such projects; in particular, I recommend that all records be entered into computer databases to save time and make more data analyses possible.

1-G. COSTS OF BIRDS OF LINCOLN COUNTY PROJECT

1-G-1. GREATEST EXPENSE: TIME AND ENERGY

By far the greatest expense to this Project has been time, concentration, and energy. I would not have had the time and energy to do both this Project and to also deal with the hassles of fund-raising, gaining non-profit status, etc. My advice to others contemplating similar projects is to recognize that the financial cost is actually the least "expense" involved and to try to work and complete limited projects that are within their time and energy constraints.

Note that whether the Birds of Lincoln County Project will ultimately be judged a success or failure will depend upon how much more information can be made accessible. Its failure will not be because it lacked money for postage; it will be because this Project required more time and energy than I or others have given to it.

1-G-2. FINANCIAL COSTS

YB&N was formally organized in October 1980 (section 1-B-2), seven years after I started the "Birds of Lincoln County" Project. Although many YB&N members (including myself) have contributed field notes and many members support the need for this Project (which has been well-publicized in the YB&N newsletter, the Sandpiper), YB&N has not paid any of the costs of this Project, and this isn't an official YB&N Project. Contributors have paid the costs of making their observations (e.g., gasoline for driving) and mailing their notes.

I have paid the costs of mailing requests and compiling the records for this Project out of my pocket and haven't bothered to keep track of the financial expenses because there was no reason to do so. But the costs of paper, photocopying, and postage have probably been only \$100-300, which is less than what some birders spend on their binoculars. The major financial expense comes in publishing results, but that only becomes a problem when there are results to be published.

1-G-3. PRINTING COSTS

It is easy to become hopeful that a project such as this will at least pay for the cost of printing the archival results. But that hasn't been the case. Libraries, agency biologists, and other sites where the archival results should be available often can't afford purchasing a copy, so I've donated them copies because I feel that it is more important to make the information available than to try to pay for the cost of printing. Unfortunately, I have been unsuccessful at enticing individuals to purchase copies in spite of notices in Oregon Birds and some reviews in ornithological journals.

Consequently, I have donated more copies than I have sold for the previous Birds of Lincoln Co. Project results (Bayer 1992a,b) as well as similar archival material published in Studies in Oregon Ornithology and Journal of Oregon Ornithology (Table 1.11). The demand for archival material has been so low that printing is feasible only by photocopying because small print runs of less than 100 copies are reasonable (Table 1.11); if the demand was for 500 or more copies, then offset printing would be less expensive, so that copies could be sold at more competitive prices.

So, the reader is warned that there may not be a great demand for the finished results if they are archival and that it may not be possible to even pay for the cost of printing. Thus, the focus of doing such projects has to be on making the information available, not on financial gain.

1-G-4. AUDIENCE FOR RESULTS: GENERAL PUBLIC OR RESEARCHERS

To have a hope of a publication breaking even financially, it has to appeal to a greater audience than archival material does because archival material does not sell, although it is of the greatest use to researchers.

Besides potential financial well-being, another advantage to publications written for larger audiences is obvious: they reach many more people than do archival publications. For example, the Bayer (1977, 1988a, and 1993) checklists for Lincoln County that I prepared from the archival data were able to have print runs of about 1,000-2,000 copies (Table 1.1). The 1988 publication nearly paid for the cost of printing, although the 1993 checklist has not; probably because it was too complicated.

Ideally, a project will result in publications written for both the general public and for researchers because both audiences are important.

Fig. 1.1. Photoreduction (90%) of 7 January 1990 instruction sheet requesting Lincoln County bird field notes. Earlier versions were similar to this. Along with a cover letter, an instruction sheet was mailed to individuals with blank field

note forms (Fig. 1.2). In 1983-1985, sheets with species listed phylogenetically were also sent; beginning in about 1988, sheets with species listed alphabetically were included (an example of p. 1 of the sheet sent in 1990 is in Fig. 1.3).

INSTRUCTIONS (Lincoln.FL3, gen 7, 1-7-90)

Field Note Sheets for "Birds of Lincoln County" Project

We would greatly appreciate it if you could share your Lincoln County sightings with us. We are interested in the monthly occurrences of COMMON as well as rare species of birds seen in Lincoln County, so please also share your sightings of COMMON birds.

It would be most helpful if you could either photocopy your Lincoln County bird field notes (and send Range the photocopy bill) or compile your field notes on the enclosed Field Note sheets. Please send photocopies of your field notes or the Field Note sheets to Range Bayer (265-2965), P.O. Box 1467, Newport, Oregon 97365.

Enclosed are two kinds of Field Note sheets. One set of sheets only has the heading below and blank lines; write in the bird species on these sheets. The other set is an list of alphabetized bird names. Please use the kind of Field Note sheets that are most convenient for you.

The following heading is on top of all Field Note sheets and should be filled out the same for all kinds of sheets:

Date (month, day, year; e.g., 4-12-1988)

Start-End Time Optional: if times are known, please include them. (local time at the start and end of the observations; for example, 10:00-10:20 AM]

Lincoln Co. Location (list locations where birds were seen. For example, North Siletz Bay, South Siletz Bay, Yaquina Bay, Devils Lake, Salmon River.) If the exact location is not known, then listing location as "Lincoln Co." is OK.

Example only for alphabetized Field Note sheets:

Date	12-6 1987	12-6 1987	1-5 1988	5-7 1988
Start-End Time	7-8 AM			3:30-4 PM
Lincoln Co. Location	YAQUINA Head	YAQUINA BAY	LINCOLN COUNTY	Siletz BAY
Auklet, Rhinoceros	3			
Bittern, American				
Brant (Black)		175	X	
Bufflehead		50	X	
Canvasback		25	X	
Coot, American		X		
Cormorant sp.		X		
Cormorant, Brandt's	X		X	50
Cormorant, Double-cr.	X		X	12
Cormorant, Pelagic	X			7

* X=bird observed but bird numbers not recorded.

** If area birded is not known, then list Location as "Lincoln County."

Please send field notes to Range Bayer (265-2965), P.O. Box 1467, Newport, OR 97365

Fig. 1.4. Photocopy of two 3 x 5 index cards written by Bayer for "Birds of Lincoln County" project. The coding and hand-writing make it

difficult for anyone but Bayer to understand the meaning of these cards.

A) Part of Darrel Faxon's data for May 1988 illustrating how Faxon's data and those of some other observers with many observations were often pooled into semimonthly presence (i.e., presence in 1-15th or 16th-end of a month). Some of the

coding present on the card: Faxon=Darrel Faxon, absence of location=Thornton Creek for Faxon's records, E=early (1-15th), L=Late (16th-31st), (date)=arrival date of a species (e.g., GC Sparrow), OC Warbler-Orange-crowned Warbler.

Early late May 88			FAXON
Robin EL	Mallard E	Barn Swallow EL	Meadowlark EL
South Sparrow EL	Wilson's Warbler EL	YN Warbler EL	GSW EL
BC C's	Solitary Tanager EL	KS Nuthatch EL	Mainly common
Chickadee EL	Vireo EL	OC Warbler EL	Wood EL
VO Junco EL	Meadowlark EL	Hermit EL	Wentzel EL
BH Cowbird EL	BT Gray Warbler EL	Warbler 3rd EL	RS Towhee EL
Crow EL	West Flycatcher EL	Hummer EL	Flicker EL
GC Sparrow EL	KT Hawk EL	Junco EL	Pink Siskin EL
WS Sparrow EL	Pileated Wood EL	Raven EL	MacGillivray's EL
Starling EL	W. T. Wren EL	Woodpecker EL	Warbler 9th
Stellar Jay EL	TV EL	Tree Toad EL	Blk. Thrush EL
		Swallow EL	(over)

B) Greg Gillson's data for 1 and 2 January 1988 illustrating multiple dates and multiple locations on a single index card. Some of the coding: Gillson=Greg Gillson, (absence of location for 1 Jan 88 and 2 Jan)=observation location was

general and not a specific site included in Birds of Lincoln County Project, (arrow over Boiler Bay)=observation made on 2 January, RS Towhee=Rufous-sided Towhee, GW Gull=Glaucous-winged Gull.

1 Jan 88	2 Jan	Boiler Bay	Boiler Bay
GSW	RS Towhee	Common Noddy 5	1 RT Lark
Canada Goose	House Finch	2 Horned Grebe	10 OC Lark
West Gull		3 West Grebe	3 Ogilby's Grebe
Crow		20 D C Lark	2 Barn Swallow
South Sparrow		5 Barn Swallow	1 BT Flycatcher
Killdeer		6 Redwing	2 No. Flicker
Black Phoebe		1 Hawk	2 W. Flycatcher
W. T. Wren		7 Black Oyst. Snail	50 C & 2 Red W. Kinglet
GC Nuthatch		10 Black Phoebe	1 Hermit Thrush
Starling		15 S. W. Flycatcher	2 Am. Robin
Robin		10 West Gull	1 Varied Thrush
Stellar Jay		50 Gull	1 RS Towhee
		1 Kingfisher	1 Field Sparrow
		2 South Sparrow	
		1 Black Phoebe	

 1-I. TABLES

TABLE 1.1. Known "Birds of Lincoln County" compilations.

#	Publication Date	Title	Source
1	1974	(no title)	R. Bayer
2	June 1975	(no title)	R. Bayer
3	July 1977	Birds of Lincoln County, Oregon	Bayer (1977)
4	May 1988	1988 Bird List for Lincoln County, Oregon	Bayer (1988a)
5	Jan. 1992	Preliminary Draft of 1849-1990 Semimonthly Bird Records for Lincoln County, Oregon.	Bayer (1992a,b)
6	Nov. 1993	Bird Frequencies for Lincoln County, Oregon	Bayer (1993a)

#	Publisher	Printing Process	Format (inches)	No. of Copies	No. of Pages	Sale Price	Order of Species
1	R. Bayer	ditto	8.5 x 11	<12?	4	none	phylogenetic
2	R. Bayer	photocopy	8.5 x 11	<12?	4	none	phylogenetic
3	OSU *	**	8.5 x 11	1200+	19	\$1.00	phylogenetic
4	Gahmken Press@	@@	8.5 x 14	2000	2	\$0.25	alphabetical
5	Gahmken Press@	photocopy	8.5 x 11	15	200+	none	alphabetical
6	Gahmken Press@	print	4.25 x 11	850	16	\$1.00	alphabetical

#	First & Last Dates Included	Type of Records	Years of Data	Comment
1	yes	monthly	1972-1974	A
2	yes	monthly	1972-1975	A
3	yes	monthly	1961-1976	B
4	yes	seasonal	1961-1981	C
5	yes	semimonthly	1849-1990	D
6	yes	monthly	1849-1990	E

* Published by Sea Grant Marine Advisory Program, Extension Service, Oregon State University Marine Science Center, Newport, Oregon and listed as being prepared by Yaquina Birders.

@ Published by Gahmken Press, which is wholly owned and operated by R. Bayer.

** Printed by OSU apparently by photo-offset printing on acid containing paper. The publishing information on the bottom right-hand corner of the original print run indicates that 500 were printed in April 1977. ("4/77-500"), but it was received by OSU in April 1977, not printed then.

@@ Printed by Pioneer Press, Newport, on a photo-offset press.

A The 1974 and 1975 revision were limited mainly to people at the OSU Marine Science Center and adjacent Oregon Department of Fish and Wildlife. The 1974 edition was reproduced on a ditto duplicator available to OSU Zoology graduate students at Cordley Hall, Corvallis, where Bayer was a graduate student. The 1975 publication consisted simply of monthly occurrences being handwritten onto a copy of the 1974 edition; this copy was then photocopied and distributed. Both compilations were for the "Yaquina Bay Bird Group," a name of convenience (section 1-B-1).

(Table 1.1 continued on next page)

(Table 1.1 continued)

- B The first run of 500 copies was printed by OSU in April 1977 and another run of 500 was done in 1978-1980. Copies were sold at the OSU Marine Science Center Bookstore. After the first two runs were sold, I made 100 photocopies on November 1982 and July 1983 for the Bookstore to try to keep it on the Bookstore's shelves. It finally went out of print sometime in 1984 or 1985.
- C This publication was folded twice to a 3.5 x 8.5 inch format that could fit into a pocket. It was widely available for sale in 1988-1989 at the OSU Hatfield Marine Science Center Bookstore, but later it was only available sporadically. As of January 1995, about 1,300 copies had been sold or given away.
- D Bayer (1992a,b) were not made for sale; I donated copies to nine people interested in these records and loaned copies to others to photocopy, if they wished. I also donated a copy to the following depositories:
- 1) HMSC Library
 - 2) Oregon Natural Heritage Database (Nature Conservancy)
 - 3) Josselyn van Tyne Library of Ornithology, Univ. of Michigan
 - 4) Oregon Department of Fish and Wildlife Database (Bayer 1992b only)
 - 5) Lincoln County Historical Society (Bayer 1992b only)
- E Bayer (1993a) was photo-offset printed by OSU Printing at Corvallis. It was 8.5 x 11 sheets folded in half length-wise, so that they would still fit into a large shirt pocket, when folded again in half. It was printed on acid-free paper.
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TABLE 1.2. Contributors of 100 or more Lincoln County bird records through 15 January 1995. Note that there have been many other people that have made a few observations that have been incorporated; there is room here only for the major contributors. Hopefully, no major contributor has been overlooked.

120 individuals or couples are listed; 61 (51%) were Lincoln County residents at the time of their observations.

Institutional affiliations are given in parentheses (see Table 1.4 for codes for institutions) and are only listed for individuals who made at least some observations as part of their "official" duties. Some of these people also made many more observations "unofficially" or when they were no longer affiliated. Other people that are not listed with an affiliation were employed for an institution but made their observations unrelated to their official duties. Overall, 29 (24%) of the individuals/couples shared field notes they made while they were affiliated to an institution as part of their "official" duties.

*=Lincoln County resident when observations were made.

@=also major contributor to 1974 and 1975 bird compilations.

#=also major contributor to Bayer (1977).

* Mike Adam	Sayre Greenfield	Kim Nelson (#29,46)
David Anderson	Joan Hagar (#30)	* Michael Noack (#51)
* Jim Anderson (#32)	Don Alan Hall	*@#Bob Olson (#34)
* Jon Anderson (#54)	* Mark & Mary Jo Hedrick	* Dorothy Olson
John Annear (#54)	* Terry Heimgartner (#54)	*@#Laimons Osis
*@#Range Bayer (#31)	Jane Helrich	Dick Palmer
* Wes & Florence Bell	Hendrik Herlyn	* Cindy Paszkowski
Barb Bellin	* Trisha Herminghaus	Mike Patterson
* J.C. Braly	* #Wayne Hoffman	* Suzanne Paulsen
* B.J. Bretherton(18,43)	* Eric Horvath (#5)	Don Pederson
* George Brown	* Alice Ivey	* Chuck Philo
* Sara & Don Brown	Stanley G. Jewett (#43)	* Phil Pickering
#Robert Buchanan	Jim Johnson	* Dave Pitkin (#54)
*@#Gene Bureson	* Anna Kircher	Al Prigge
Andrew Carey (#46)	Jan & Rick Krabbe	*@#Paul Reed
Barbara Combs	* Janet & Phil Lamberson	Ted & Claudia Regier
Alan Contreras	* Lola Landis	Roger Robb
John Cornely (#54)	* Ruthann LeBaron	Craig Roberts
* Jesse & Doris Crabtree	* Kathy Liska (#51)	* Janet Rogers
* Edmonde Currier	* Bob Llewellyn	*@#Pete Rothlisberg
* Anne Decius	* Bob Loeffel	Skip Russell
* Pat & Meagan Dickey	Tom Love	* Floyd Schrock
Colin Dillingham	* Roy Lowe (#54)	J. Michael Scott (#31)
J.C. Dirks-Edmunds (#12)	Bob Lucas	* Lloyd & Luella Seabury
Mark Egger	John Lundsten	Jamie Simmons
* Lisa Ellingson (#32)	Donna Lusthoff	#Aaron &
* Mark Elliott	Don MacDonald (#53)	Katherine Skirvin
#Elzy & Elsie Eltzroth	* Jim Mackie	Jerry Smith
Joe Evanich, Jr.	James A. Macnab (#12)	* Dale Snow
Fred Evenden, Jr.	Chris Marsh (#31)	* Annette Snyder (#32)
* #Darrel Faxon	Arnie & Debbie Martin	* Gloria Sullivan
Tad Finnell	Thomas McCamant	Paul Sullivan
Anthony Floyd	Kathy Merrifield	Steve Summers
*@#John Fortune	* Gary Meyer (#51)	Verda Teale
Ira Gabrielson (#43)	Tom & Allison Mickel	* Bettina Topliff
Lawrence Gangle, Jr.	Craig Miller	Arthur C. Twomey
* Jim & Janice Gerdemann	* Dawson & Bobby Mohler	Clarice Watson
Roy Gerig (#49)	* Rich Morgan	* Jean Weakland (#6)
Greg Gillson	* Bob & Dona Morris	* Selmer & Sue Westby
* Ruth Goodrich	* Terry Morse	Fred Zeillemaker
		* Louise Zeringue (#54)

TABLE 1.3. Published sources of information searched for Lincoln County bird notes as of January 1995.

Publication	Years or Issues Searched	Footnote
Audubon Magazine	1941-1946	A
American Birds	1971-1993 (47[4])	A
Audubon Field Notes	1947-1970	A
Audubon Warbler	1937-1994	B
Bird-Lore	1907-1940	A
Cape Arago Tattler	1977-1985 (gaps)	C
Chat	1971 (vol. 1)-1994	D
Gabrielson and Jewett (1940)		
Journal of Oregon Ornithology	1993 (no. 1)-1994	
Oregon Birds	1977 (vol. 1)-1994	
Oregon Grape Leaf	1969-1984 (gaps), 1994 (gaps)	E
Quail	1978-1986 (many gaps)	F
Quail Quips & Quotes	1975 (4[5]), 1976 (5[2-11])	F
Roberson (1980)		
Sandpiper	1980 (vol. 1)-1994	G
Studies in Oregon Ornithology	Nos. 1-8	
Woodcock (1902)		

many papers cited in Scott et al. (1972), Egger (1980), and papers in the ornithological literature thereafter

- A Field notes in Bird-Lore were continued in Audubon Magazine, then in Audubon Field Notes, and finally in American Birds; these publications could be considered part of the same series.
- B The Audubon Warbler is the newsletter of the Audubon Society of Portland.
- C The Cape Arago Tattler is the newsletter of the Cape Arago Audubon Society. I saw copies courtesy of interlibrary loan by the HMSC Library through the Southwestern Oregon Community College Library. Gaps were: 1977 (1[1]), 1981 (5[3]), 1984 (8[1&2]), and 1985 (9[1]).
- D The Chat is the newsletter of the Audubon Society of Corvallis.
- E Oregon Grape Leaf is the newsletter of the Salem Audubon Society. In October 1984, Jerry Smith kindly sent me Lincoln County field notes that he had compiled while skimming through the Grape Leaf. In March 1990, he also provided field notes for Salem Audubon Society field trips. I have seen the April-December 1994 Grape Leaf. Accordingly, there are many gaps, and since there are a fair number of Lincoln County records in the Grape Leaf, perusal of back issues would provide more records.
- F Quail Quotes & Quips and then the Quail are successive newsletters of the Lane County Audubon Society. I saw copies courtesy of interlibrary loan by the HMSC Library through the University of Oregon Library, which provided photocopies of the Quail for March 1978-February 1986 with gaps for August and September 1978; March, September, and November 1979; June 1980-May 1982, July-September 1982, July 1983, September 1983-June 1984, July 1984-May 1985, July-December 1985, and after February 1986.
- G The Sandpiper is the newsletter of Yaquina Birders & Naturalists of Lincoln County.

TABLE 1.4. Alphabetically arranged government agencies, businesses, and private or public institutions that may have Lincoln County bird notes; most of these I have already searched or queried.

Agency/Institution (location; approximate date of visit or query)	Footnote
Benton County Historical Museum (Philomath, OR)	3
Breeding Bird Counts (BBC)	2
California Academy of Sciences (San Francisco, CA; May 1987)	4
Coastal Or. Productivity Enhancement Program (COPE) (Newport, OR; Feb. 1994)	5
Cornell Laboratory of Ornithology (Ithaca, NY):	
Colonial Waterbird Register	6
No. Am. Nest Record Program	6
Project FeederWatch	6
Project Tanager	6
Devils Lake Water Improvement District (DLWID) (Lincoln City, OR)	7a
Georgia Pacific Co. (Toledo, OR)	1
Hawk Migration Association of North America (HMANA)	7b
International Shorebird Survey (Manomet Bird Observatory, Massachusetts)	8
Jobanek's private collection (Eugene, OR)	9
Lewis & Clark College (Portland, OR)	1
Lincoln County Historical Society (Newport, OR; 1985 ?)	10
Lincoln County newspapers	11
Linfield College (McMinnville, OR)	12
Loeffel's Lincoln Co. Beached Bird Walks (South Beach, OR)	13
Mid-Winter Bald Eagle Survey (?)	14a
Monitoring Avian Productivity and Survivorship (MAPS)	14b
Multnomah County Library (Portland, OR; September 1986)	15
National Archives and Records Administration	16
Nature Conservancy, Or. Nat. Heritage Database (Portland, OR; March 1992)	17a
North American Migration Count (NAMC)	17b
North Lincoln Co. Historical Museum (Lincoln City, OR)	1
Olympic National Park (Port Angeles, WA; 1980's)	18a
Oregon Breeding Bird Atlas	18b
Oregon Dept. of Fish and Wildlife (ODFW):	
Database (Corvallis, OR; May 1993)	19
Other (South Beach, Corvallis, & Portland, OR; April 1989)	20
Oregon Eagle Foundation (Klamath Falls, OR)	21
Oregon Historical Society (Portland, OR; 1983 ?)	22
Oregon Museum of Science and Technology (OMSI) (Portland, OR; May 1986)	23
Oregon Shores Conservation Coalition, Project CoastWatch	24
Oregon State Library (Salem, OR)	25
Oregon State Parks (several locations in Lincoln County)	26
Oregon State University (OSU) (Corvallis, OR):	
Archive for the History of Science and Technology (AHST) (May 1992)	27
Cooperative Wildlife Research Unit	28
Dept. of Fisheries and Wildlife (B. J. Verts, Kamal Islam:1985)	29
Dept. of Forest Science	30
Dept. of Zoology	31
Hatfield Marine Science Interns (HMSC) (Newport, OR)	32
HMSC Library (Newport, OR; 1994)	33
HMSC Seatauqua Program (Newport, OR; 1992)	34
Horner Museum (June 1984)	35
Kerr Library Special Collections (mid-1980's)	36
Museum of Natural History, Dept. of Zoology (1985)	37
University Archives	38

(Table 1.4 continued on next page)

(Table 1.4 continued)

Agency/Institution (location; approximate date of visit or query)	Footnote
Point Reyes Bird Observatory (PRBO) (Stinson Beach, CA)	39
Pacific Flyway Project	39
Portland Audubon Society (Portland, OR; 1982, 1984)	40
Portland State Univ., Dept. of Biology (Portland, OR; Jan. 1986)	41
Sitka Center for Art and Ecology (Otis, OR)	1
Smithsonian Institution Archives (Washington, DC; Dec. 1987)	42
Southern Oregon State College (Ashland, OR)	1
U.S. Bureau of Biological Survey	43
U.S. Dept. of Agriculture, Forest Service (USFS):	
Cape Perpetua Visitor's Center (Yachats, OR)	44
Hebo Ranger District (Hebo, OR)	45
Old Growth Forests Wildlife Habitats Res. & Dev. Program (OGF) (1990)	46
Siuslaw National Forest Headquarters (Corvallis, OR; 1980's)	47
Waldport Ranger District (Waldport, OR; May 1992)	48
U.S. Dept. of Interior, Bureau of Land Management (BLM):	
Roy Gerig	49
Salem District Office	50
Yaquina Head Outstanding Natural Area (YHONA) (Newport, OR; Dec. 1994)	51
U.S. Dept. of Interior, Fish and Wildlife Service (USFWS):	
Bird Banding Laboratory (Laurel, Maryland; November 1985)	52
Breeding Bird Surveys (Laurel, Maryland; May 1991)	53
Finley National Wildlife Refuge, HMSC Office (Newport, OR; Jan. 1995)	54
National Biological Survey/Service (?)	1
Patuxent Wildlife Research Center (Laurel, Maryland; 1992)	55
Portland office (Portland, OR)	56
U.S. Dept. of Interior, Minerals Management Service	57
University of California, Berkeley. Museum of Vertebrate Zoology (MVZ)	58
University of Oregon (UO) (Eugene, OR):	
Condon Museum of Natural History (May 1988)	59
Library (Special Collections; May 1988)	60
University Archives (May 1988)	61
University of Puget Sound (UPS) (Tacoma, WA):	
Slater Museum of Natural History (Nov. 1987)	62
University of Washington (UW) (Seattle, WA):	
Burke Museum (July 1987)	63
Library (Manuscripts & Univ. Archives; July 1987)	64
Western Foundation of Vertebrate Zoology (WVZ) (Los Angeles, CA; May 1987)	65
Willamette Univ. (Salem, OR)	1
Winter Bird Population Studies (WBPS)	2
Others	66

FOOTNOTES:

1. I have not contacted this institution; it is possible that they may have Lincoln Co. field notes.
2. BBC (which are not Breeding Bird Surveys) and WBPS used to be published in American Birds and are now printed in Journal of Field Ornithology; I have looked through them and found nothing for Lincoln County, although some were for other areas of Oregon.
3. Benton Co. Historical Museum. They may have some pre-1900 records because Lincoln Co. was part of Benton Co. until 1893.
4. California Academy of Sciences. When I visited here in May 1987 to get bird skin records for Bayer (1989), I also did some searching and found Edmund Heller's early records for Curry Co. (Bayer 1988b). I did some searching for Lincoln Co. and other Oregon Coast notes, but I don't know and my notes don't

(Table 1.4 continued)

indicate if there may have been additional manuscript material that I did not see. So searching this museum again is necessary to be sure; perhaps now they have a computerized catalogue of their field note and manuscript holdings.

5. COPE is a consortium of government agencies and private businesses. Eric Horvath was an observer for a COPE project in Lincoln Co. in 1989-1990, and he graciously compiled and, in February 1994, shared their semimonthly records.

6. Cornell Lab of Ornithology. They are involved in a variety of projects as part of their Bird Population Studies program, some of which may not be listed here.

Because of insufficient funding, the Colonial Waterbird Register is no longer gathering data but is supposedly available for research purposes (Engstrom 1990:29).

The North American Nest Record Program is designed to collect data about nesting (also see #63). I have not contacted them to see if they have any Lincoln Co. records.

Project FeederWatch has had at least two Lincoln Co. participants. Jean Weakland has graciously provided copies of her data, but I have not contacted Cornell for other records.

Project Tanager was established to study all tanager species in No. America. I have not contacted them to see if they have any Lincoln Co. data.

7a. DWLID. Because of their introduction of grass carp, the DWLID and the Preservation Association of Devils Lake (PADL) has had a project whereby volunteers counted waterfowl at Devils Lake and has proposed to do so again (e.g., p. A-6 of 13 Jan. 1995 News-Times, the Newport newspaper).

7b. HMANA. Volunteer hawkwatchers observe and share their observations with this organization. I have looked through their 1988-1994 journals and seen no observations for the Oregon Coast.

8. International Shorebird Survey. This appears to be predominately for the East Coast, and I have not requested information from them. For background, see Howe (1990).

9. George Jobanek. He has been searching and gathering materials about Oregon ornithology for many years (e.g., see his articles in Oregon Birds). He probably knows of locations of field notes that I haven't searched.

10. Lincoln Co. Hist. Soc. Marie Erickson kindly looked through their files sometime in the mid-1980's and reported that they had no field notes; a request for bird field notes was also printed in their newsletter about then, but no responses were received.

11. Lincoln Co. newspapers. Current Lincoln County newspapers are located in Newport and Lincoln City; it is doubtful that the newspaper offices have any unpublished field notes. However, old issues of these newspapers and defunct newspapers in these towns and in Toledo and Waldport can, with a great deal of searching, provide some records, and, more importantly, which individuals kept bird records so that the field notes of these people can be looked for elsewhere. I have done the time consuming search of reading through microfilm copies of the Waldport newspapers (courtesy of the HMSC Library via interlibrary loan to the Univ. of Oregon Library), but I have not yet compiled the results.

12. Linfield College. James Macnab, Jane Claire Dirks-Edmunds, and other staff and students had a major project here, starting in the 1930's (e.g., see Bayer et al. 1994). Dirks-Edmunds indicated that at least one senior thesis was done about birds for this project, but she didn't have a copy to make available to me. Dorothy McKey-Fender also indicated that her senior thesis

(Table 1.4 continued)

involved censusing birds in the Coast Range outside Lincoln County, and she still had a copy. I have not checked at Linfield College or in their library to see if these senior theses are available.

13. Bob Loeffel has been doing beached bird walks along the same 4.5 mi of beach near Thiel Creek since December 1977. When he started he was in charge of the South Beach office of the ODFW, but he did these walks not as part of his ODFW duties. Since 1983, he has been assisted by Sara & Don Brown. Unless they found a rare species and the record was accepted by the OBRC, I have excluded their beached bird records (Bayer 1995c: section 2-A-2).

14a. Mid-Winter Bald Eagle Survey. In recent Oregon Eagle Foundation (#21) newsletters, they have cited results of this survey that they indicate is funded by Oregon Eagle Foundation, Oregon Cooperative Wildlife Research Unit at Oregon State Univ. (#28), and the ODFW. I am not sure which of these entities would have the results, and I have not contacted them for Lincoln County results.

14b. MAPS. This program is managed by the Institute for Bird Populations (P.O. Box 1346, Point Reyes Station, CA 94956) and has had, I believe, a station in Lincoln County in the Siuslaw National Forest. My contact was one of the MAPS interns at that station; he said that he would get me the data for their observations, but never did. I have not contacted them for data.

15. The Multnomah Co. Library wrote me in Sept. 1986 that they did not have a collection of manuscripts or correspondence.

16. National Archives. As cited in footnote #55 (USFWS, Patuxent), the USFWS has transferred some of their records to the National Archives in 1992. There are 11 Archive repositories around the country. Although I was unsuccessful in my search for field notes for B. J. Bretherton in the National Archives, I have not tried looking for field notes of other individuals that were federal employees for one agency or another and whose field notes may be stored in one of the National Archive repositories.

17a. Nature Conservancy. In March 1992, Mark Stern sent me two observations with dates for Spotted Owls; he also indicated that if I was willing to visit, I may be able to obtain many more records. At that time, their computerized database was not set up to provide individual observations.

17b. NAMC. Oregon Birders have participated in the 1993 and 1994 May NAMC counts (French 1994), but I do not know if any participated in Lincoln County, perhaps Pat French knows.

18a. Olympic National Park. Through correspondence in the early 1980's, I learned that B. J. Bretherton's field notes were here, so I visited and copied materials. I did not look for other Oregon field notes, but I doubt it. Bretherton's notes were here because he was part of an 1890's expedition in the Olympics.

18b. Oregon Breeding Bird Atlas. This project is slated to start field work in 1995 (1994 Oregon Birds 20:96), so perhaps they will have Lincoln Co. records in the future.

19. ODFW Database. This Database is located at the ODFW NW Regional Office in Corvallis. In May 1993, Teri Waldron sent some of the owl records that they had for Lincoln County; she also said that they had some other owl records that had not yet been typed into their Database. I do not know the full extent of their holdings, but they may have many Lincoln Co. records. However, they seem severely underfunded, which makes it difficult for them to be able to respond to requests.

(Table 1.4 continued)

20. ODFW, Other. I have received shorebird census results (e.g., Sanderling Project) through April 1989 from Charlie Bruce, who along with Mary Walter also provided some other information about Great Blue Herons and ODFW censuses of waterbirds at Yaquina and Alsea Bays).

However, the ODFW has a variety of projects about Snowy Plovers, Sanderlings, Band-tailed Pigeons, grouse, mid-winter waterfowl surveys, neck collared Western Canada Geese, winter raptors, etc. that were done by staff and volunteers that I haven't tried to obtain. But the data they have also sometimes needs to be interpreted cautiously because I remember seeing their coastal "counts" of Brant given in some of their annual reports and noting that I found more in Yaquina Bay than they supposedly found along the entire Oregon Coast in some years. "Censuses" are most accurate if they are regularly done by experienced observers; counts done irregularly by observers not used to doing rigorous censuses can be misleading.

Locations to search for these ODFW records include the South Beach, Corvallis regional, and Portland main offices. Diligence is required, and some staff may not know where materials are located and say such materials do not exist, when in fact, they do somewhere.

Bob Loeffel (#13) has done beached bird walks while he was employed by the ODFW, but they were not part of his duties.

21. Oregon Eagle Foundation. In their first newsletter in 1986, they indicated that they were going to have Regional Reporters collect Bald Eagle observations, but they have discontinued announcing this in recent newsletters. I have not checked to see if any Bald Eagle records were collected for Lincoln County, and, if so, where they are. Also see #14a & 28.

22. Oregon Historical Society. In about 1983, I looked for field notes in their Vertical File Index, Biography Card File, and Manuscripts Catalog for Olive Barber, J. C. Braly, B. J. Bretherton, Edmonde Currier, Overton Dowell, Jr.; Grace French, Ira Gabrielson, S. J. Jewett, A. G. Prill, Hilda Reiher, Alex & Rosaline Walker, F. L. Washburn, and Arthur R. Woodcock; only some of Prill's non-Lincoln County notes were there then. Searches for other people's notes may be more productive. Also, they may have received more materials since my visit, or they may have material in other files.

23. OMSI. I wrote them in May 1986, but I never received a response. My recollection of a late 1994 conversation with David Lukas was that he had done some bird surveys at the Salmon River with OMSI, and that they may have those records somewhere.

24. Oregon Shores Conservation Coalition. They have started a project to monitor Oregon beaches in 1994. At some point they hope to include bird surveys.

25. Oregon State Library. They have a variety of collections (e.g., Oregon History Vertical File, WPA Federal Writer's Project Manuscripts [Biography, Flora and Fauna, Historic Towns, folders). Through interlibrary loan via the Newport Public Library, I borrowed a mimeographed copy of Olive Barber's Birds of Coos County that was very general, and I believe only about 8-10 pages long. But when Alan Contreras tried to relocate it, he was unable to do so. I have not visited this library to search their holdings.

26. Oregon State Parks. In 1986 and 1987, I provided bird records for some State Parks in Lincoln County to Marjorie Willis (Oregon State Parks Natural Resource Planner) because they were interested in natural history inventories in State Parks. They themselves may have bird records compiled by their staff, but I have not inquired of individual parks or their main office.

27. OSU, AHST. This archive is curated by Paul Farber, currently Chairman of the Dept. of History at Oregon State University. As of May 1992, I had seen

(Table 1.4 continued)

all their Lincoln County bird notes (which I had donated), but Farber has an interest in archiving original documents about Oregon history, including original field notes, so he may acquire more material. He may also give this archive to Kerr Library Special Collections (see #36).

28. OSU, Cooperative Wildlife Research Unit (CWRU). The Oregon Eagle Foundation (#21) newsletter indicates that the CWRU has conducted surveys of Bald Eagle nest sites since 1978, including sites in Lincoln County. I have not contacted Frank Isaacs or others in the CWRU for information about Lincoln Co. sites. Perhaps, the CWRU has other information as well.

In response to my request, E. C. Meslow, CWRU Leader, wrote in November 1989 that the CWRU does not have the field notes for their researchers; each researcher stores his or her own records (also see #29).

29. OSU, Dept. Fisheries & Wildlife. In 1985, Verts & Islam indicated that they had no field notes. Because students keep their own research records (also see #28), I have contacted several who completed theses in this Department about their field notes. Eric Forsman and Richard Reynolds never responded to either of my two requests; R. W. Mannan and M. L. Morrison wrote that they were unable to share their field records.

On the other hand, I wrote Kim Mellen and Kim Nelson about their field notes. Mellen promptly responded that some of her thesis research had been in Lincoln County, but that she only kept records for Pileated Woodpeckers, the subject of her research. Nelson also promptly responded with unpublished research for her observations in Lincoln County and has been most helpful.

30. OSU, Dept. of Forest Science. They have had a number of students in recent years studying birds in the Coast Range, including Lincoln County.

I wrote Barry Schreiber twice in 1990 about his M.S. thesis research but have not received a response.

I wrote Joan Hagar about her M.S. thesis research, and she kindly shared her Lincoln County field notes.

I also contacted Kevin McGarigal for his Lincoln Co. records. On 26 March 1992, he telephoned to indicate that he didn't have time to supply them but that they would be deposited with the Oregon Quantitative Sciences Group (QSG) database in this Department, with Susan Stafford in charge of the permanent archive. I wrote Susan Stafford on 27 March 1992 about this and have never received a response. In his Ph.D. Thesis, McGarigal does not mention the QSG database or that his field notes were deposited anywhere. The QSG database is not listed in the 1994 OSU Staff Directory.

31. OSU, Dept. of Zoology (also see #37). A number of graduate students did theses about research in the Coast Range; their theses are available at Kerr Library. Kenneth Gordon, who was the major professor of many of these students, left his field notes and papers to Horner Museum (#35). The Zoology Dept. did not keep field notes or manuscripts of students or staff.

Stanley H. Anderson did his Ph.D. thesis work in the Coast Range, and I asked to see if I could see his field notes, but he replied in February 1990 that they had been lost while moving.

J. Michael Scott conducted his Ph.D. research in Lincoln County, and he kindly sent all his field notes in December 1991.

Chris Marsh did his Ph.D. research about shorebird foraging in rocky intertidal areas of Lincoln Co. and shared his bird records.

I completed a nonthesis Master's program about Great Blue Herons; I finished in March and graduated in June of 1976.

32. OSU, HMSC Interns. Prior to the BLM taking full control of Yaquina Head in about 1985, the HMSC had summer interns interpreting the natural history of Yaquina Head for visitors. Some of them (e.g., Jim Anderson, Lisa Ellingson, and Annette Snyder) kept bird records that they have kindly shared.

(Table 1.4 continued)

33. OSU, HMSC Library. They do not have a collection of any field notes.
34. OSU, HMSC Seatauqua Program. Bob Olson has taught Seatauqua birding classes for many years and has shared his records for these trips. He has also shared his class field notes when he gave bird field trips as part of a class taught at the HMSC.
35. OSU, Horner Museum. In June 1984, only Bernard J. Bretherton's and J. C. Braly's field notes were looked for and not found; however, they have Kenneth Gordon's field notes that may be available by appointment. Other field notes may also be available. In March 1992, Lucy Skjelstad (Director) indicated that much of their written material acquired prior to 1979 had not been catalogued, so it is not known what they have. They have also been having major funding problems.
36. OSU, Kerr Library. Their Special Collections have some manuscript materials, and they may acquire more. In the mid-1980's, I asked the staff if they had any field notes, and the staff person said that to his knowledge, they did not. They have recently acquired Linus Pauling's materials, so they are showing an interest in acquiring unpublished materials, but it remains to be seen if they will be interested in storing bird field notes.
37. OSU, Museum of Natural History (which is part of Dept. of Zoology). It appeared defunct when I visited in 1985. It seems that at least some of the written materials that they once had were transferred to the Western Foundation of Vertebrate Zoology. The only remnants that Joe Beatty and I found were Grace French's journals that she had donated to the Museum (see Bayer 1986b).
38. OSU, University Archives. I only looked for A. R. Woodcock's, B. J. Bretherton's, W. T. Shaw's, and J. C. Braly's field notes; none were found, although I discovered a large picture of Braly on a collecting expedition. It was my impression that it is doubtful that any field notes would be here because their focus is archiving only the history of OSU staff.
39. PRBO. They are coordinating various projects (e.g., the Pacific Flyway Project), some of which are being done along the Oregon Coast, so they may have some materials. I have written to some staff members, and sometimes have not received any responses. But I have not requested Lincoln Co. bird notes.
40. Portland Audubon Society. February 1982 (Harry Nehls) and May 1982 (Mike Uhtoff) correspondence indicated that there wasn't any Lincoln Co. field notes in their files; in September 1984, Beth Parmenter indicated that they do not keep records of birds seen during their field trips.
Part of the problem in hunting field notes is to locate who to search for. If Portland Audubon has kept their membership records, it might be possible to check who in Lincoln County was a member prior to 1970 because they may have been interested enough to keep bird records as well as be an Audubon member.
41. Portland State Univ. In January 1986, Richard Forbes promptly responded to my request that they did not have any field notes for J. C. Braly or B. J. Bretherton. I did not ask about others.

(Table 1.4 continued)

42. Smithsonian Institution Archives. Several, if not all, of the Biological Survey reports mentioned in Gabrielson and Jewett (1940:56-58) are located here (also see #43 and #55). In December 1987, I requested and promptly received the following reports from the Smithsonian:

- Box 84: Folder 18. Bailey, V. O. Special Reports, 1909.
- Box 85: Folder 19. Fisher, A. K. Special Reports, 1897.
- Box 87: Folder 1. McLellan, J. E. Special Reports (Birds), 1894.
- Box 87: Folder 8. Palmer, T. S. Special Reports, 1889.
- Box 87: Folder 18. Peck, M. E. Special Reports, 1916.
- Box 88: Folder 16. Streater, C. P. Special Reports, 1890.
- Box 88: Folder 18. Streater, C. P. Special Reports, 1891.
- Box 88: Folder 20. Streater, C. P. Special Reports, 1893.
- Box 89: Folder 1. Streater, C. P. Special Reports, 1894.
- Box 89: Folder 4. Streater, D. D., Jr. Special Reports, 1909.

I chose these reports from the many available for Oregon because it appeared from Gabrielson and Jewett's (1940:56-58) description that these may have been in Lincoln County. However, only Bailey's report did.

In June 1986, M. Ralph Browning of the USFWS National Museum of Natural History wrote that besides the Smithsonian Archives there is also a Smithsonian Division of Birds Archives that also has Oregon field notes. I have not fully investigated the holdings of either Archives, nor explored what the National Museum may have; it may take a visit of several days to sort things out.

43. U.S. Bureau of Biological Survey. Their work is discussed in Gabrielson and Jewett (1940:56-58). This Bureau was a predecessor of today's USFWS. Biological Survey data appears to have been scattered to many places. Gabrielson's and Jewett's field notes are in private museums, some of the material is at the Smithsonian (#42) and at USFWS (Patuxent) (#55). I have published the Patuxent material available on microfilm for the Oregon Coast (Bayer 1986a).

44. USFS, Cape Perpetua Visitor's Center. In 1994, Ray Spaulding, a volunteer at this Center, and I conducted correspondence about a bird list he was preparing for Cape Perpetua. He also indicated that they may have bird records for that area. Although I sent Ray what records I had compiled for the Cape, I have not made an effort to see what records they may have.

45. USFS, Hebo Ranger District. In correspondence with John Lundsten in 1994, I learned that the Hebo office has jurisdiction over at least the Salmon River in northern Lincoln County. I have sent bird records to this office in September and October 1994, but have not received any reply to either mailing, so it is hard telling what records they may have and if any are accessible.

46. USFS, OGF. In 1990, Andrew Carey and Kim Nelson were very helpful in providing Lincoln County bird records from this project.

47. USFS, Siuslaw National Forest Headquarters. Somewhere in the headquarters, there may be field notes of staff or former staff. For example, Pinto et al. (1972:294) write that Gene Silovsky's field notes are at the Corvallis office of Siuslaw National Forest. However, I visited there sometime in the 1980's, and the people I talked to knew nothing about any such notes. Perhaps the notes have been lost, or the staff were unaware of their location and didn't have the time to look for them.

48. USFS, Waldport Ranger District. Their wildlife biologists are regularly rotated through here, so keeping in contact requires work. Biologists Delanne Villegas supplied owl information in Jan. 1986, Ray Davis supplied owl information and some 1990-1992 records for other species in May 1992, but I did not receive a response to my request of August 1994. I suspect that they also have other records prior to 1990 that I haven't seen.

(Table 1.4 continued)

49. BLM, Roy Gerig. Gerig did some wildlife surveys for the BLM in Lincoln County and shared some (but not all) of his 1991-February 1994 notes.

50. BLM, Salem District Office. On 22 May 1992, I wrote Scott Hopkins because ODFW Database staff said that he had owl and other bird data for the Coast Range. On 8 June 1992, he telephoned and said that they had records that were not computerized and that he would later send them to me. I have not heard or received anything from him since then.

51. BLM, YHONA. Staff (particularly Kathy Liska and Michael Noack) have shared the notes on their daily checkoff sheets through 1994 (with some monthly gaps in 1994), but they may have some reports by volunteers or staff that I have not seen.

52. USFWS, Bird Banding Laboratory. They sent me a copy of band recovery returns for the Oregon Coast in November 1985.

53. USFWS, Breeding Bird Survey. Don MacDonald has conducted the Salado-Sam Creek's Breeding Survey, the only Lincoln Breeding Bird Survey, from 1968 to 1994. Upon request, the USFWS has promptly sent me the results through 1994.

54. USFWS, Finley/HMSC. Roy Lowe, Palmer Sekora, and other staff have been EXCEPTIONALLY helpful in providing records from their 1978-1994 aerial waterfowl surveys (e.g., Bayer and Lowe 1988), nesting seabird surveys, and live and dead birds found during their beached bird transects in Lincoln County. However, I have not requested their Canada Goose records or their pelagic or bird records, but unless a rare record was accepted by the OBRC, I have excluded everyone's pelagic and beached bird records (Bayer 1995c: section 2-A-2).

55. USFWS, Patuxent. When I did Bayer (1986a:6), I was under the impression that the Biological Survey notes contained therein on loanable microfilm ("Bird Migration Schedules, Reel 17, North Dakota, Oklahoma, Oregon, and Ohio") were the only remaining Biological Survey notes. However, Chandler Robbins, after reading Bayer (1986a), wrote and informed me on 17 October 1986 that they have many other records that would be accessible to visitors, upon appointment. This was also announced in the December 1986 Ornithological Societies of North America Newsletter.

On p. 3 of 1992 Ornithological Newsletter No. 86, Patuxent announced that they had recently transferred a set of records concerning bird migration and distribution to the National Archives. In hopes of being able to access the Patuxent records that I had not seen, I contacted the National Archives and they replied on 25 March 1992 that the National Archives Mid-Atlantic Region had the series in Record Group 22, Records of the U.S. Fish and Wildlife Service and that the 232 pages of material in these files for Oregon would cost \$58 at 25c/page. Their description of the materials indicates that this material is exactly the same as on the microfilm roll that I borrowed from Patuxent Library and used to prepare Bayer (1986a).

After I wrote him, Chandler Robbins replied on 24 July 1992 that the materials given to the National Archives were exactly the same as those on the microfilm roll that I had seen. He also indicated that the 5 million record cardfile mentioned in the December 1986 newsletter as well as supporting files of observers and localities are in files in the Nelson Laboratory at the Patuxent Wildlife Research Center and can be viewed by appointment only.

It has not been feasible for me to visit Patuxent, Maryland to see these notes. So, perhaps the largest set of records that I have not seen is at Patuxent, and since these records are primarily through 1950, they may provide important historical information about birds in Lincoln County.

56. USFWS, Portland Office. It is possible that pre-1978 records may be here somewhere, but I haven't attempted to determine if they have any. Or perhaps

(Table 1.4 continued)

pre-1978 USFWS records may be at one of their other regional offices or in one of the regional National Archives repositories.

57. U.S. Dept. Interior, Minerals Management Service. I have a copy of their final report (OCS Study MMS 91-0093) entitled "Oregon and Washington Marine Mammal and Seabird Surveys," but their records are not included because these surveys were done from an airplane along the coast and are accordingly of pelagic birds. I have arbitrarily excluded pelagic bird records from the Birds of Lincoln County Project; pelagic records should be dealt with separately (Bayer 1995c: section 2-A-2)

58. UC, Berkeley (MVZ). This Museum serves as a depository for many field notes, but I did not visit it to look at them, which I believe is required. But perhaps it is possible to correspond with them to see if they have field notes for a particular individual. In any case, knowing whose field notes to look for is necessary.

59. UO, Condon Museum. When I visited in April 1987 and May 1988, they had several sets of people's field notes that were kept in a cabinet, but none were for Lincoln County. However, they may have acquired more notes since my visit or some relevant notes that they had were not present during my visit (e.g., Bayer 1989:176).

60. UO, Library. They have an extensive Manuscript Collection. My recollection is that they did not have field notes listed specifically for Lincoln County when I visited in May 1988, but they may have materials for specific individuals, who may have taken field notes. Another search is necessary.

61. UO, University Archives. I talked to the curator in May 1988, and he was very knowledgeable, but he didn't think they had any Lincoln Co. field notes.

62. UPS. In November 1987, I only looked for and found Stanley G. Jewett's field notes; however, I asked if J. C. Braly's field notes were here, and the curator, Gordon Alcorn, said that they were not. They have considerable quantities of other materials, so this may be a haven of far more notes. But when I visited, a list of their holdings wasn't available.

63. UW, Burke Museum. In July 1987, they had many field notes as well as a sizable Egg Nest Record Card Collection that is not a part of the Cornell Nest Record Program (see #6). Most of their field notes were for Washington, but it is possible that some may include Oregon field notes as well. But to find Oregon records it is essential to know who visited Oregon and when they were there, so that the information can be discovered because I don't think any of the field notes are indexed by location.

64. UW Library. In July 1987, they reported that they do not have any Oregon field notes; they also do not have any material for Arthur Einarsen.

65. WFWZ. In May 1987, I searched for all Lincoln County field notes among their collection of field notes: those found were by Ira Gabrielson and Edmonde Currier. However, their material is arranged by observer, and I did not search for records for every observer; I searched only for those that I knew had been in or near Lincoln County. Since this is a major depository for North American ornithological material, it is possible that they have acquired additional material. Lloyd Kiff, then Director, and other staff here were very helpful during my visit.

66. Others. In the mid-1980's, I checked at the Newport Public Library, and they then did not have any unpublished material; but other public libraries in

(Table 1.4 continued)

Lincoln County may.

Lincoln County and some cities have parks or park and recreation departments. It is possible that somewhere in their files they may have field notes that their staff may have made for these parks.

In early 1994, I checked with Bill Rogers, the Lincoln Co. Extension Agent, and he said they did not field notes in their files.

When bird skin records in Bayer (1989) were compiled, records from some museums were available only if the museum was visited, which was not feasible for me. A list of museums that may have more specimen records are given in Bayer (1989:18-19). In particular, Harold Broadbooks' collection which is at Southern Illinois University and which may contain many specimens collected in Lincoln County was not visited (Bayer 1989:213).

There are also several organizations that are focussed on one species or one group of species, such as Purple Martins, bluebirds, Common Loons, Peregrine Falcons, etc. I have not contacted these organizations to see if they may have material specifically about Lincoln County birds.

TABLE 1.5. Published requests for field notes for Lincoln County.

Chat @: 1982 (vol. 11[5]:35), 1983 (vol 12[8]:62)
 Oregon Birds: 1981 (vol. 7:60, 138), 1982 (vol. 8:42)
 Sandpiper *: 1980-1994

@ The Chat is the newsletter of the Audubon Society of Corvallis.

* The Sandpiper is the newsletter of the YB&N and commenced publication in October 1980.

TABLE 1.6. Number and timing of my written requests to individuals or couples for Lincoln County field notes. Usually, I sent a packet of data forms as discussed in section 1-D-2. .-=zero (which is used to enhance readability of absence).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1976	14	.	.	.	14
1977	1	1	1	.	.	.	.	.	.	.	.	.	3
1978	1	.	.	1
1979	0
1980	0
1981	4	12	.	15	21
1982	5	1	.	1	1	11	1	.	.	1	.	.	31
1983	.	6	1	.	3	.	1	.	1	.	1	.	13
1984	.	1	.	.	.	1	.	.	1	3	.	.	6
1985	2	2
1986	1	.	.	.	.	.	.	1
1987	1	.	.	1	1	.	3
1988	1	1	.	.	1	.	.	3
1989	3	.	3
1990	35	2	.	.	1	1	3	.	.	.	.	.	42
1991	.	2	1	.	.	1	.	4	.	.	.	.	8
1992	.	.	23	1	1	1	1	.	.	2	.	1	30
1993	.	12	.	.	.	.	.	.	.	.	.	.	12
1994	35	.	.	.	.	35
SUM	41	25	26	2	6	17	8	39	20	21	5	18	228

TABLE 1.7. Number of residents and nonresidents of Lincoln County who responded at least once to my written requests (see Table 1.6) for Lincoln Co. field notes. Note that I sent few letters to residents because most received our newsletter that contained requests. I often sent several requests to nonresidents. People who responded without field notes indicated that they didn't keep field notes or that they didn't have the time to extract them. Resident=individual or couple resided in Lincoln Co. at the time of their observations. N=number of individuals or couples requested; %=percentage of requests.

		Responses.....			
		with	w/o	No	
		Field	Field	Response	Sum
		Notes	Notes		
Residents	N	7	0	2	9
	%	78	0	22	100
Nonresidents	N	50	14	56	120
	%	42	12	47	101

TABLE 1.8. Response rate of nonresidents of Lincoln County to selected mass mailings from Table 1.6. A nonresident is an individual or couple that did not reside in Lincoln Co. at the time of their observations. N=number of individuals or couples requested; %=percentage of requests.

		Responses.....			
		with	w/o	No	
		Field	Field	Response	Sum
		Notes	Notes		
Sept. 1976	N	3	1	7	11
	%	27	9	64	100
June 1982	N	2	1	8	11
	%	18	9	73	100
Jan. 1990	N	10	1	24	35
	%	29	3	69	101
March 1992	N	4	1	14	19
	%	21	5	74	100
Aug. 1994	N	8	1	25	34
	%	24	3	74	101

Table 1.9. Additional individuals that are potential sources of Lincoln County bird notes. The approximate time for when they made field notes is also given.

Individual	Year(s)
Elizabeth A. Baker	<1970
C. W. Beekley	<1970
J. C. Braly	<1950
Robert D. Bratz	1950's
Harold Broadbooks	<1950
R. E. Dimick	<1970
H. M. DuBois	<1960
Arthur Einarsen	<1960?
Gordon Gullion	<1960
Daisy Halleck	<1960
Leslie Haskin	<1960
Inez Hilliker	<1960
Jay Long	?
J. A. Munro	1950's
Lars Norgren	1965-1975
A. G. Prill	<1940 ?
W. T. Shaw	<1940
June Skilling	<1965
Arthur Twomey	1940's
Alex Walker	<1970

Lincoln County Listers (e.g., Summers 1989), who have not previously responded or are not listed in Table 1.2.

Other unknown individuals who kept field notes prior to 1970 (see "B" below).

Various post-1980 researchers who have not shared their notes.

- A Braly's contribution (see Table 1.2) is derived from birds he collected (see Bayer 1989:244) or his published papers; the location of his field notes is unknown.
- B In reading pre-1970 newspapers, I have discovered many people that made bird observations in Lincoln County that I had not known about previously. I have not determined if their field notes are accessible, and I expect that there are also other people that made observations prior to 1970.

TABLE 1.10. Statistics about the number of YB&N members and member retention (A), meeting attendance (B), dues and bank balance (C), and number of Sandpipers (the YB&N newsletter) printed (D).

A) NUMBER OF YB&N MEMBERS & MEMBER RETENTION. Number of Members=(individual memberships) + 2(Family memberships).

Members at End of Year.....				Members Retained in Next Year..				% Loss.....	
Date	Memberships		Total Members	Date	Memberships		Total Members	Member- ships	Mem- bers
	INDIV	FAM			INDIV	FAM			
Dec 80 *	?	?	26*	?	?	?	?	?	?
Dec 81 *	47	16	63*	?	?	?	?	?	?
Dec 82 *	59	17	93*	?	?	?	?	?	?
Dec 83	56	20	96	20 Apr 84	52	19	90	6.6	5.2
Dec 84	71	23	117	20 Apr 85	60	23	106	11.7	9.4
Dec 85	72	30	132	20 Apr 86	56	28	116	13.9	12.1
Dec 86	64	30	124	20 Apr 87	55	25	105	14.9	15.3
Dec 87	65	26	117	20 Apr 88	58	20	98	14.3	16.2
Dec 88	79	23	125	20 May 89	68	20	108	13.7	13.6
Dec 89	72	27	126	20 Jun 90	68	22	112	9.1	11.1
Dec 90	78	34	146	20 Jun 91	69	28	124	13.4	15.1
Dec 91	80	40	160	10 Jun 92	64	31	126	20.8	21.3
Dec 92	76	39	154	-- Jun 93	63	31	124	18.3	19.4
Dec 93	75	42	159	21 Mar 94	57	36	129	20.5	18.9
Dec 94	70	42	154	-					

* Memberships were done on a 12 month basis from the month of dues payment rather than a calendar year like in recent years.

B) YB&N MEETING ATTENDANCE (--no meeting, ?=meeting occurred but attendance is unknown, N=number of meetings each year). We have no records about meeting attendance prior to February 1984.

Total Members & Nonmembers/Meeting.....											
	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Jan	?	21	32	33	26	22	47	37	35	23	35
Feb	45	25	20	22	27	18	*	35	24	41	47
Mar	12	23	19	26	20	32	19	28	29	31	36
Apr	26	19	18	15	23	32	43	33	30	35	29
May	40	17	18	10	28	23	33	35	40	45	23
June	15	6@	-	9	23	18	19	25	19	26	?a
July	-	-	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-	-	-
Sept	13	21	18	23	33	19	36	40	24	37	23
Oct	17	18	19	20	20	15	24	27	28	22	47
Nov	26	20	45	20	20	17	20	17	22	22	14
Dec	28	25	10	17	21	27	11	26	24	25	40
N	10	10	9	10	10	10	9	10	10	10	10
Mean	25	20	22	20	24	22	28*	30	28	31	33a
MIN	12	6	10	9	20	15	11	17	19	22	14
MAX	45	25	45	33	38	32	47	40	40	45	47

@ Low attendance because ratified Club Constitution & business meeting w/o program.

* The February 1990 meeting was cancelled because of bad weather.

a Meeting attendance was not recorded.

(Table 1.10 continued on next page)

(Table 1.10 continued)

C) YB&N DUES AND BANK BALANCE

Year	Dues.....		Aug. 31 Balance	Sept. 1-Aug. 31 Fiscal Year	Fiscal Year (income)-(expenses)
	Indiv- idual	Fam- ily			
1984	\$4	\$6	\$557.65	1983-84	+69.18
1985	\$4	\$6	656.50	1984-83	+98.95
1986	\$4	\$6	843.51	1985-86	+186.91
1987	\$4	\$6	677.34	1986-87	-166.17
1988	\$5	\$7.50	758.97	1987-88	+81.63
1989	\$5	\$7.50	663.64	1988-89	-95.33
1990	\$5	\$7.50	674.83	1989-90	-46.97
1991	\$5	\$7.50	742.48	1990-91	+67.65
1992	\$5	\$7.50	722.09	1991-92	-20.39
1993	\$7	\$10	831.86	1992-93	+109.77
1994	\$7	\$10	966.62	1993-94	+134.76
1995	\$6	\$9	-	-	-

D) NUMBER OF SANDPIPERS PRINTED PER MONTH. Note that only 2-3 extra Sandpipers were printed each month, and these were also often distributed.

Year	Total Sandpipers Printed/Month.....											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1982	?	?	?	?	81	84	71	75	71	78	81	81
1983	82	81	83	84	88	86	77	76	76	73	82	85
1984	86	89	90	92	95	-	-	96	92	96	98	99
1985	95	99	97	99	99	-	-	99	104	103	106	106
1986	109	105	104	95	99	-	-	106	101	102	103	106
1987	106	109	104	98	101	-	-	101	101	101	106	108
1988	112	115	116	109	111	111	112	113	113/116	119	121	124
1989	121	118	114/118	108	110	117	116	116	114	117	119	121
1990	131	129	128	124	120	122	122	125	130	132	138	138
1991	142	142	131	128	132	-	137	137	137	143	142	145
1992	142	138	138	133	128	133	133	134	141	140	142	142
1993	143	140	126	131	133	-	134	137	138	139	139	142
1994	139	132	120	128	131	130	134	135	1335	136	134	136

/=indicates that there was a regular edition & a special edition of a Sandpiper in a month.

TABLE 1.11. Number of copies of Bird Records of Lincoln County (BRLCO) (Bayer 1992a,b), Studies in Oregon Ornithology (SOO), and Journal of Oregon Ornithology (JOO) donated and sold. Data are through 1994. I am sole proprietor of Gahmken Press, which has published all three series.

		No. of Copies.....					
		Donated		Sold...		Total..	
		Min	Max	Min	Max	Min	Max
Bird Records of Lincoln Co.	No. 1	6	-	0	-	6	-
"	No. 2	14	-	0	-	14	-
Studies in Oregon Ornithology	Nos. 1-5, 7, & 8	32	55	18	45	62	100
"	No. 6	89	-	40	-	129	-
Journal of Oregon Ornithology	Nos. 1-3	22	30	0	2	30	40

 CHAP. 2. RECOMMENDATIONS FOR OTHERS PLANNING SIMILAR PROJECTS

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2-A. INTRODUCTION

From the start, let me emphasize that I hope others try to set up databases of bird records! Although my comments are lengthy, please recognize that I don't mean them to be discouraging; I am just trying to share my experiences and frustrations in the hope that the reader can recognize and perhaps miss some of the pitfalls that I've fallen into.

If the reader is interested in doing a similar project, please read Chap. 1 and Bayer (1995c: Chaps. 2-3) carefully and try to avoid some of the problems that I have only discovered in hindsight.

2-B. PRIMARY GOAL OF PROJECT

Perhaps the most important goal is to set up and do a Project that is attainable with the resources that are available, so that the Project will have at least some published results (also see section 1-G). The most precious resource will probably be the initiator's time to actually do the project, not money (section 1-G).

One mechanism to accomplish this goal is to do annual progress reports, even if there are not many data. If it then becomes no longer possible to continue the project, then someone can pick up the project where it was left off.

2-C. PLANNING BEFORE SETTING UP A DATABASE

2-C-1. NARROW THE SCOPE OF A PROJECT TO A FEW YEARS

The reader may feel that it is easy to do such a compilation as this, but it is not. Because of the amount of time consumed, I suggest that compilers concentrate on analyzing and publishing the results of only one year at a time or at most no more than 5-10 years. Set firm boundaries of what years to include (e.g., 1990-1994), and if field notes outside of these boundaries are acquired, store them, but keep the major focus on a few years within the boundaries. If either boundary is left open, then there is a real risk of never finishing anything.

On one hand, it is important to know sources of field notes outside the boundaries of a project, and it may be wise to acquire them, too, if they are not in a museum, because people move or die, so that their notes may not be available forever. On the other hand, the process of acquiring field notes outside of a project's boundaries may "spend" too much time and energy.

Trying to compile all years of records can be disadvantageous for several reasons. First, a lot of time is consumed in trying to find old records; second, even when old records are found, there may be so few of them (e.g., 1890-1967 in Bayer 1995c: Fig. 3.1) that they may be too fragmentary to be of much use. Lastly, and most importantly, it is very easy to underestimate the

amount of time and energy consumed and greatly overestimate the assistance that others may give in analyzing field notes, so it is far better to analyze and publish a single year's notes than to try to compile 30 years of notes and fail to complete anything.

2-C-2. PROJECTING HOW A DATABASE WILL BE USED

How a database will be used or made available determines, in part, how a database should be set up.

If a database is available electronically, it can be used in a variety of ways. But to make data available electronically it has to be in a particular format; for example, ASCII text files can be sent via e-mail and are at many gopher sites, so using database software that allows export to a general format such as ASCII text (which most wordprocessing, spreadsheet, and database programs can do) is essential. Do not use a program that only uses a proprietary format because it may become obsolete within a few years, so that no one can use it.

Records from the database can also be prepared as data reports and deposited at research libraries. To maximize the chance that the records will be used, it is important to figure out ways to make the records available in both electronic and paper format.

2-C-3. PLANNING PROGRESS OR FINAL REPORTS BEFORE SETTING UP A DATABASE

It is much more efficient to figure out what kinds of analyses or reports are desired BEFORE setting up a database or choosing database software. Then data fields (section 2-C-4) and procedures can be established to most easily prepare such reports.

Examples of some variables that may be included in reports are:

- 1) pooled records for a large area (e.g., a whole county)
- 2) records for specific sites
- 3) arrival and departure extremes or means
- 4) abundance
- 5) nesting evidence
- 6) sex ratios
- 7) details for rarities or unseasonal records.

After the variables to be included are chosen and the data fields (section 2-C-4) and procedures are established, try some sample runs on limited amounts of records to see if it will be easy to produce the desired reports with the given format. Doing practice runs can save considerable time and frustration in the long run.

2-C-4. CHOOSING DATA FIELDS FOR A DATABASE

Examples of data fields include: details about rarities (section 2-C-5), phylogenetic number, observer, site, habitat, time of day, weather, nesting, abundance, sex, age-class, singing, or diet.

PHYLOGENETIC NUMBER.--If records are to be sorted phylogenetically, then a data field with a number such as the AOU number to identify each species is required. Some software programs such as PLOVER (see section 2-C-6) that may do this automatically when the species name is entered would save considerable time in data entry; in a general database program, data entry would require entering the name of the species and the additional step of looking up a the phylogenetic number of the species and then entering it, too.

In Bayer (1992a,b; 1995b,c), I have listed records alphabetically because that was what was possible, but some people dislike such an arrangement. Unfortunately, it is not feasible for me to go back and assign a phylogenetic

record for each species; it would have been easiest to do so when I started.

OBSERVER.--Setting up a field for the observer(s) is important because it gives a way to credit sightings and to determine if a particular observer sees something that others do not. I have been able to detect repeated misidentification errors of particular species by certain observers because I kept records of the observers.

If space is limiting in a database, then a master list of observers with unique codes for each can be set up. For example, a four letter data field could be used by using four letter codes with upper and lower case letters for the observers like those used for names of species (e.g., Lloyd & Luella Seabury=LLSe, Range Bayer=RaBa). But it is important to keep an up-to-date list of all such codes and rules for creating them to avoid using the same codes for two or more observers and to be consistent in creating and using the codes.

SITE.--Having a data field to record the site where the observations were made is particularly important because site specific records are essential in determining species distribution and differences in seasonality among sites as well as providing site specific information for resource managers (Bayer 1993b:6). Thus, records for Lincoln Co. or Yaquina Bay are useful, but they are not as useful as records for portions of Yaquina Bay such as Sallys Bend, Idaho Flats, South Jetties, etc. because records for specific sites can always later be pooled, but pooled data can not be split into individual sites.

It also helps to identify the boundaries of sites, so that records for that site designation are specifically and consistently for that bounded site. For example, I separate records for birds seen from the South Jetty from records of birds seen between the jaws of the jetties because some of the birds seen from the "South Jetty" may actually be out over the ocean, not inside the jetties.

So figuring out how to treat site specific records is an important consideration that should be done before entering too many records. Some site designations can be general (e.g., Yaquina Bay), but those for important sites (e.g., parks, refuges, or lakes) should be for specific areas with boundaries.

HABITAT.--This is an often used term, but when it comes time to actually use it, habitat may not be very meaningful and can be very confusing because each observer may define the "same" habitat differently (Bayer 1993b:8-9). If habitat is to be used as a data field, it is critical that habitats be carefully defined, and the descriptions given to observers before they make their observations, so that habitats are consistently identified and used. Further, observers and data inputters need to have a consensus about dealing with habitat mosaics, patches, or ecotones (Bayer 1993b:9) because many birders do not observe and keep records for a "pure" habitat.

Other categories such as Life Zone, Elevational Zone, or Physiographic Province may not be very useful (Bayer 1993b:6-8).

TIME OF DAY.--The time at both the start and end of observations for a site can be important, especially for systematic observations. If this data field is included, then a decision needs to be made as to whether only local time (i.e., Pacific Standard Time [PST] during November-March or Pacific Daylight Time during April-October) or just PST are to be input. Otherwise, errors can arise.

WEATHER.--If weather is to be included, then a list of codes and categories must be established beforehand and distributed to observers, so that they use the codes consistently. Codes used for Breeding Bird Surveys or Christmas Bird Counts may be useful as standards.

OTHER.--Nesting, abundance, sex, age-class, singing, diet, etc. are useful categories of information, but giving a separate data field to each

may take up more space than is feasible. Data about some or all of these categories can be pooled into a general field ("Other") but doing so makes it more difficult to sort and find these categories than if each had its own data field.

2-C-5. HANDLING DETAILS OF RARITIES AND UNSEASONAL SPECIES

INTRODUCTION.--It is more efficient to plan how to document details for rare or unseasonal species when setting up a database than later.

DEFINING RARE OR UNSEASONAL SPECIES.--One step in this process is to define what constitutes a rare species. Of course, all Oregon Bird Records Committee (OBRC) review species would be review species, but many other species may be rare in a particular county but not in the state as a whole.

One definition of a rare species for a county could be those not listed for a county or those that are category #5 (and perhaps also category #4) in Summers and Miller (1993). For Lincoln Co., I have defined a review species as one with less than 10 records in the past 10 years (i.e., an average of less than 1 record/year) (Bayer 1995c: section 2-B-1).

In addition, some records will be very unseasonal (e.g., swallows in winter), so it is important to define what is unseasonal enough to warrant detailing. For Lincoln Co., I have defined an unseasonal species as one with less than 10 records for a particular month or season in the past 10 years (i.e., an average of less than 1 record/year) (Bayer 1995c: section 2-B-2).

The problem with my definitions is that they require all records to be compiled before rare or unseasonal species can be identified; it would be better to determine which records need details as they are being compiled. Thus, it would be useful to use Summers and Miller (1993), local checklists, or personal experience to identify which records should include details.

COMPILING DETAILS.--Details for a sighting may not be available in the records that are received because the observer may not realize that his or her sighting is rare or unseasonal. So it is important to contact the observer as soon as possible for details before the observer moves or forgets them. I realized this too late (June 1992), so I haven't compiled as many details as might have been possible if I contacted observers earlier. Report forms based on the OBRC Rare Bird Report Form are discussed in Bayer (1995c: section 3-F-4).

DOCUMENTATION.--My approach has been to first determine if a sighting requires details and then look on my 3 x 5 card of that sighting for the source (e.g., observer or published reference); then I look in the observer's correspondence or other source for details. This is time consuming, and I have not completed doing this.

A better approach would be to include details in a database as the sightings are entered. Since it will often take many lines (perhaps even pages) of text to describe a rare or unseasonal species, it would not be feasible to include the documentation in a data field of a database program that assigns fixed-field lengths to fields because the amount of space that would be required for each record would be too much. So it may be necessary to have a separate free-form database that allows unlimited text for documenting details of rare or unseasonal species.

2-C-6. PICKING APPROPRIATE DATABASE SOFTWARE FOR THE PROJECT

Choosing database software that will make data entry easy and accurate and data analyses simple is as important as is picking a program that can export files to other programs.

Recent reviews of current birding programs can be searched to see what is

recommended, but it must be remembered that the goal is establishing a database, not just a birding list, so programs geared mostly towards keeping lists may be inappropriate.

A general database program may not be satisfactory because it may not allow easy access of codes for the phylogenetic order of species. Thus, one would have to look up the phylogenetic code for each species and enter both the species name and the code. That is cumbersome!

One program that seems promising is PLOVER (Sandpiper Software, 9 Goldfinch Court, Novato, CA 94947). It supposedly allows bird names to be entered by using only four-letter codes (rather than requiring typing the whole name of a species), automatically assigns phylogenetic codes, and allows statistical analyses of first and last dates, mean arrival dates, and other variables. Data can also be exported into other programs. Its cost in 1991 was \$68. Craig Miller is using it for his Lake County database.

Another consideration in choosing a database is whether it uses fixed or variable length data fields. If a database allows variable lengths, then written descriptions of variable length could easily be included only for those records in which it is necessary. In contrast, if the database uses fixed-length data fields, then it may not be feasible to include long descriptions because every record would have to have the same long length (whether used or not) and this would take up considerable disk space.

2-D. SETTING UP AND OPERATING A DATABASE

2-D-1. RECORD KEEPING OF CONTACTS

Because there are many people or institutions that may have field notes (e.g., section 1-D), it is essential to keep records of specifically who is contacted, the date, and the results. With such a list, I was able to write people several times over the years for updates of their field notes since their last contribution. Such a list also makes it possible to leave a project for others to continue.

2-D-2. REGULAR DOUBLE-CHECKING OF RECORDS

After a database is set up, it is essential to double-check all data that have been entered against the original field notes or correspondence. It is amazing how easily transcription errors can enter and riddle a database. By setting up a protocol of regularly checking all entered data (and knowing which data have been double-checked), a better quality database with a strong foundation will result. Double-checking is no fun, but it is easier to do it regularly than to wait until it is nearly finished and then try to go back through it. Plus, if a database is regularly double-checked, then any interim reports or analyses will be based on data with few, if any, transcription errors.

2-E. IMPORTANCE OF ANNUAL OR BIENNIAL REPORTS

Doing annual or at least biennial progress data reports ensures that something will be available, especially if copies are donated to depositories such as the Nature Conservancy's Natural Heritage Program, ODFW Database, university and local libraries, and the local historical society. It will also take some pressure off those doing the project, and the results may provide some much needed positive or constructive feedback.

It is too easy (as I well know) to keep going and going and going and going in hopes of finishing just one more part before publishing the results, but as soon as one part is done, another pops up. In pursuing that ever-vanishing goal, it is easy to end up finishing nothing and abandoning the entire project because it becomes too much.

Another reason to do annual or at least biennial reports is to keep contributors involved and enthusiastic about a project. If nothing tangible

results from their efforts, contributors often start losing faith that anything will result.

By printing it out in a book format (even if it is essentially a data report) and donating it to libraries, it can be catalogued by the libraries and available to the general public. Many Oregon university and even public library catalogs are now available on-line, so getting a report into a library can make it available to a large audience.

It is not expensive to produce a limited number of data reports in book format and donate them. Kinko's or other copy shops can do photocopies and comb binding so that even runs of 10-30 copies of a 100 page data report would cost less than \$300 on very good quality paper. For the Journal of Oregon Ornithology, I have had photocopies made on 60 lb book paper because it is acid-free and wears much better than regular photocopy paper, although it costs more (6.5c/copy vs 4-5c/copy for regular paper).

If the report is printed out with a standard typeface (e.g., Courier), someone can use a scanner to read it into a computer file of their own and continue the database, so that re-keying records would not be necessary.

2-F. SELECTING TIME INTERVALS WITHIN A YEAR FOR DATA ANALYSES IN REPORTS

2-F-1. INTRODUCTION

Some writers list monthly records, I have used semimonthly intervals (1-15th and 16th-end of month) (Bayer 1992b, 1995b,c), and Martha Sawyer chose quartermonthly intervals for her Douglas County reports (Sawyer and Hunter 1988, Fix and Sawyer 1991).

2-F-2. SEASONAL

Checklists often give seasonal occurrence (e.g., spring, summer, fall, and winter), although the seasons are rarely precisely defined. While seasons simplify analyses, they do so too much, so that the results may not be very meaningful. The comings and goings of birds are too complicated and too diverse to fit neatly into humanly defined seasons.

2-F-3. MONTHLY

Monthly listing is easiest but can be too long of an interval to see changes in bird presence. For example, a species may routinely be present only in the first part of a month, and with a monthly listing it would be listed as being present for the whole month.

2-F-4. SEMIMONTHLY

Semimonthly listing gives twice as many time intervals, so it gives finer detail. My semimonthly analyses with the full name of a species and first and last dates takes up 78 characters per line, so it can be displayed on a single computer screen without scrolling. Since semimonthly records are what I started with, I am locked into it because I can't split presence into shorter intervals.

2-F-5. QUARTERMONTHLY

Quartermonthly listings seem like they would be logistically more difficult to work with, although they would give finer details about the presence of species. Another difficulty with quartermonthly data is that they would take up much more space, so that a line might not be displayed on an 80 column computer screen without scrolling. However, in Windows and with some

other programs, more characters could be displayed simultaneously on a screen. In hind-sight and with current computer programs that are more powerful, I would advise trying quarterly analyses because they give better detail. Also, quarterly records could always be pooled into semimonthly or monthly records, but not vice versa.

2-G. PROPRIETARY VS. UN-COPYRIGHTED MATERIALS IN REPORTS

2-G-1. POSSESSIVENESS

After one has spent a lot of time compiling records and inputting them, it is easy to become very possessive of them. Even though this is understandable, the risk is that reports will not be completed. Possessive people do not want to let go, and circumstances beyond their control may intervene to prevent their finishing anything. Thus, "giving" the data away from the very start of a project may be the best way to ensure that the project is at least partially successful.

2-G-2. COMMERCIAL GAIN

Another side of possessiveness exists if those doing a project are doing it, consciously or unconsciously, for personal gain. Some professional biologists or graduate students may see the data as a "goldmine" that will result in publications that will bring them tenure or grants as well as approval among their peers. However, professional biologists are usually so busy scrambling to make a living that they seldom can finish a project for which they are not currently being paid.

In my experience, archival data really have no commercial value because publishing data doesn't pay for the cost of printing, and no movies or best-selling books are going to be made directly from archival data. The value of archival data is the knowledge they contain and their providing a gateway to our better understanding of nature.

2-G-3. PUBLIC GOOD, SCIENTIFIC ETHICS, AND COPYRIGHT LAW

In my opinion, allowing the free use of archival data is the best thing to do in the long run; however, it is not easy to do so. Current Copyright law is clear that any material in a fixed form such as a data report is automatically copyrighted, even if no copyright statement is affixed and even if the author does not want the material to be copyrighted. Accordingly, an author has to take steps (which I call un-Copyrighting) to make it clear that material is freely available. Otherwise, potential users of a data report may be fearful of using it because of legal action resulting from Copyright law. For instance, after the author's death, the Copyright passes on to survivors, who may not be willing to allow as free of use as the author; also, potential users may not have the time and energy to track down the Copyright holder for their permission.

While it can be argued that Copyright law actually only protects the form of expression in a data report, not the facts themselves, ethics in science imply that the data may not be used without permission (e.g., Bayer 1993b:3).

In my opinion, the solution to Copyright and ethical concerns is to affix a clear Copyright and un-Copyright statement with reports (also see Bayer 1993b:3-4), so that they have the greatest probability of being widely used and continued. A Copyright statement is important in establishing that the author owns the Copyright; the un-Copyright statements gives permission for the material to be freely used in all forms of print or electronic media. For example, I have used the following:

"Copyright (c) 1993 by Range D. Bayer. Without charge, permission is freely given to anyone to use any means to copy part or all of this publication as long as this publication is cited as the source."

The reader can compare this to the very restrictive Copyright statements given in books and software.

I have un-Copyrighted my Lincoln Co. material, and I find the idea comforting that I am working on something for the people of the future.

 2-H. LEAVE A PROJECT SO THAT OTHERS CAN CONTINUE IT

Doing a project in such a way that others can continue it will allow the project to endure and to be built upon by others. If set up well, today's compilations will still be usable 50 or more years from now, long after the present compilers have died or have moved on to other projects. The object should be to build a body of knowledge about the birdlife of the area, not a stack of papers in someone's den that may eventually be thrown away.

 2-I. PROBABLE NECESSITY OF INCOMPLETE DATA ANALYSES FOR "FINISHING" A PROJECT

The "best" way to do a project such as this is to choose methods that can result in its being at least partially completed, and methods that will allow others to continue it. This may mean choosing methods of data analysis that do not use all data recorded. For example, weather and numbers of birds may be recorded, but to analyze all such data would probably consume more time than is available. Thus, even though all data recorded should be kept for future analyses, analyses should be restricted to the data subset that will allow completion of a project with the time and energy actually (not wishfully) available.

 2-J. FINAL THOUGHT

My advice is to narrow the focus of a project to something that is feasible. I suspect that once a project is started that it will be realized that much more is involved than was bargained for and that it will be challenging to even do an annual or biennial report, let alone completing an ambitious project.

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 LITERATURE CITED

Bayer, R. D. 1977. Birds of Lincoln County, Oregon. Oregon State University Marine Science Center, Sea Grant Marine Advisory Program.
 Bayer, R. D. 1986a. 1884-1923 Oregon Coast bird notes in Biological Survey files. Studies in Oregon Ornithology No. 1.
 Bayer, R. D. 1986b. A guide to the birds notes of Grace McCormac French of Yamhill County, Oregon. Studies in Oregon Ornithology No. 2.
 Bayer, R. D. 1988a. 1988 Bird list for Lincoln County, Oregon. Gahmken Guide No. 1. Gahmken Press, P.O. Box 1467, Newport, Oregon.
 Bayer, R. D. 1988b. Edmund Heller's 1899 and/or 1901 bird notes for Gold Beach, Curry County, Oregon. Oregon Birds 14:55-56.
 Bayer, R. D. 1989. Records of bird skins collected along the Oregon Coast. Studies in Oregon Ornithology No. 7.
 Bayer, R. D. 1991. 1991 annotated checklist of terrestrial birds at the South Beach Peninsula, Lincoln County, Oregon. Gahmken Guide No. 2. Gahmken Press, P.O. Box 1467, Newport, Oregon.
 Bayer, R. D. 1992a. Preliminary draft of 1849-1990 semimonthly bird records for Lincoln County, Oregon. Vol. I: records sorted by year. Bird Records of Lincoln County, Oregon No. 1.

- Bayer, R. D. 1992b. Preliminary draft of 1849-1990 semimonthly bird records for Lincoln County, Oregon. Vol. II: records sorted by species. Bird Records of Lincoln County, Oregon No. 2.
- Bayer, R. D. 1993a. Bird frequencies for Lincoln County, Oregon. Gahmken Guide No. 4. Gahmken Press, P. O. Box 1467, Newport, OR 97365.
- Bayer, R. D. 1993b. 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. 1993c. Waterbird records for West and East Ponds, South Beach Peninsula, Lincoln County. Journal of Oregon Ornithology 1:35-70.
- Bayer, R. D. 1995a. Background of the birds of Lincoln County Project and recommendations for others planning similar projects. Journal of Oregon Ornithology No. 4: 353-394.
- Bayer, R. D. 1995b. Semimonthly bird records through 1992 for Lincoln County, Oregon; part I: records sorted by year. Bird Records of Lincoln County, Oregon No. 3. (I will donate copies to the Hatfield Marine Science Center and Kerr Libraries of Oregon State University and the Lincoln Co. Historical Society.)
- Bayer, R. D. 1995c. Semimonthly bird records through 1992 for Lincoln County, Oregon; part II: records sorted by species. Journal of Oregon Ornithology 4: 395-543.
- Bayer, R. D. and R. W. Lowe. 1988. Waterbird and mammal censuses at Siuslaw Estuary, Lane County, Oregon. Studies in Oregon Ornithology No. 4.
- Bayer, R. D., J. A. Macnab, J. C. Dirks-Edmunds, 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.
- 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 Publication No. 1.
- Engstrom, R. T. 1990. Evaluation of the Colonial Waterbird Register. Pp. 26-32 in J. R. Sauer and S. Droege (eds.), Survey designs and statistical methods for the estimation of avian population trends. U.S. Dept. Interior, Fish and Wildlife Service, Biological Report 90(1).
- Faxon, D. F. 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.
- Faxon, D. F. and R. D. Bayer. 1993. Birds of Thornton Creek, Lincoln County, in 1991. Journal of Oregon Ornithology 1:71-80.
- Fix, D. and M. Sawyer. 1991. Checklist: the Douglas County western Cascades. Oregon Birds 17:3-12.
- French, P. 1994. North American Migration Count. Oregon Birds 20:123.
- 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.")
- 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.")
- Howe, M. A. 1990. Methodology of the International Shorebird Survey and constraints on trend analysis. Pp. 23-25 in J. R. Sauer and S. Droege (eds.), Survey designs and statistical methods for the estimation of avian population trends. U.S. Dept. Interior, Fish and Wildlife Service, Biological Report 90(1).
- Pinto, C., E. Silovsky, F. Henley, L. Rich, J. Parcell, and D. Boyer. 1972. Resource report for the Oregon Dunes National Recreation Area, Siuslaw National Forest. U.S. Forest Service, Pacific Northwest Region.
- Roberson, D. 1980. Rare birds of the West Coast. Woodcock Publications.
- Sawyer, M. and M. Hunter. 1988. Checklist: Douglas County coast. Oregon Birds 14:93-106.
- 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.
- Summers, S. 1989. 1988 Oregon listing results. Oregon Birds 15:20-32.
- Summers, S. and C. Miller. 1993. Preliminary draft: Oregon county checklists and maps. [Oregon Field Ornithologists] OFO Special Publication No. 7).
- Woodcock, A. R. 1902. Annotated list of the birds of Oregon. Oregon Agricultural Experiment Station Bull. No. 68.