

ORNITHOLOGICAL WORLDWIDE LITERATURE

formerly RECENT ORNITHOLOGICAL LITERATURE

GUIDELINES FOR ABSTRACTORS—2007

A Manual for Bibliographic Data Collection

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SUMMARY OF CHANGES

This revision consolidates the 2003 Guidelines and the 2004 Supplement, as well as refining much of the language of those earlier documents. The subject index codes have not changed in numbering or definitions. However, some of the language has been clarified for a code. A single new subject code was added: Q999, which is to be used where all or some of the taxa discussed in the paper are not listed by name within the record. This new code is primarily for use in bird surveys, counts, censuses, and similar long lists, as indicated within the subject code list. Abstractors are very important resources. Although the guidelines may look intimidating, wherever possible, this manual tries to provide shorter steps and clearer instructions for preparing OWL records.

INTRODUCTION

Ornithological Worldwide Literature (OWL) is an indexed compilation of citations that pertain to ornithology and come from the periodic, worldwide scientific literature. In the 21st Century, published scientific information that cannot be found at a later date is information lost to science. We must be able to find any and all published papers related to our science. Now ornithologists around the globe can access this important resource **on the Internet at no cost**. OWL currently adds about 4–6,000 literature citations each year to the database, which already contains >75,000 citations going back 20–25 years.

The OWL depends upon a cadre of volunteer abstractors and editors around the globe who scan and compile the material. Most of the database records are citations that also have brief abstracts to clarify the contents of the paper; all have been subject coded and some have technical keywords that are not found in the title or abstract. The OWL deals almost exclusively with serial publications such as periodicals but also announces new and renamed journals, and provides citations to other serial publications, conference proceedings, periodic reports, and recent doctoral dissertations. The "grey literature" is especially well covered by this database; that is, government reports, local journals and other serials, and various miscellaneous publications. Ornithological text books are not covered by OWL.

OWL had been previously known as the Recent Ornithological Literature (ROL) or as Recent Ornithological Literature Online (ROLO). The scope of OWL will be more than just the "recent" literature of ornithology. Eventually, the goal is to have the online database go back several decades or more to acquire citations to the serial literature. OWL will proceed well into this century with a database of the current worldwide literature that would be of interest to ornithologists.

At least as early as 1870, *The Ibis* carried a "Recent Literature" section with citations and some abstracts from various ornithological journals. *The Auk* had a similar section. Expanded over the years, *ROL* began to be published as a supplement to *The Auk* in 1976. This became a joint publication with *The Ibis* starting in 1983 and with *The Emu* soon after that. In 1997–1998, the American Ornithologists' Union, Birds Australia, and the British Ornithologists' Union decided to discontinue the printed version and to switch to an online version instead. The last printed issue was No. 75, which accompanied *Auk* 115 (2), April 1998, and *Ibis* 140 (3), July 1998.

The *ROL* was first posted on the Internet at the BIRDNET site (no longer a valid URL) of the Ornithological Council of North American Ornithological Societies, a consortium based in Washington, D.C., with the Smithsonian Institution as its Internet Service Provider. The BIRDNET site in Washington had the first on-line issue, *ROL* #76, posted in July 1998, and other *ROL* issues continued to appear until 2002. The OWL database is now housed at the Edward Grey Institute, Oxford University, Oxford, UK. The web site is

<www.BIRDLIT.ORG/OWL>

This domain name was selected to provide a simple and short URL that anyone can remember around the world.

Entries for the OWL are prepared by volunteers around the world each of whom covers one or more serials. Currently, some 100 abstractors regularly scan about 300–400 periodicals and serials, making this a major collaborative effort by and for the ornithological community. The database contains bibliographic citations from more than 1500 serials and other publications. The data are accessible at no cost by users worldwide.

The organizational structure of the OWL project is currently composed of a Project Manager, Managing Editor, Web Master, and a number of Regional Coordinators. Each Regional Coordinator works primarily with the serials and a cadre of abstractors in his or her geographic region. These coordinators are constantly on the lookout for new abstractors and monitor the activities of the current abstractors to ensure continuous coverage of the important serials in their region of the globe. Please refer to the current Staff Listing at the end of this document for regional coverage. More coordinators are being sought for many other parts of the world. The primary duty of the coordinators is to recruit volunteers to abstract the serials of that region; they are not responsible for the technical editing of the incoming data.

This manual is primarily for the volunteer abstractors and explains how to prepare and submit entries for the OWL. We have tried to make these guidelines as clear as possible. If anything is confusing, contradictory or not explained sufficiently, please get in touch with your Regional Coordinator or the Managing Editor. Please refer to the [Table of Contents](#) for finding major sections within these guidelines. Your suggestions for improving these guidelines are welcome. The guidelines are rigid in some aspects. Searching a large database requires that the data be entered in a uniform, correctly spelled form. The Editor spell checks all records going into the OWL database to catch as many typographical errors as possible. Searches for a term will miss all records where the word is misspelled. In such cases the efforts of the abstractor and editors have been negated; the data remain lost using that search criterion. In the typical search of the OWL database, three fields are examined simultaneously: Title, Abstract, and Keyword. Searches can be restricted to specific fields, but most users are looking for all records concerning a topic of interest.

SELECTION OF ARTICLES

A strength of OWL has been its inclusion of citations from specialized and local publications, most of which are not covered in other abstracting services such as *Biological Abstracts* or the *Zoological Record*. We seek citations for all papers and notes that are about avian biology. OWL does not cite simple abstracts of papers presented at meetings or symposia that do not also include the actual paper. While nearly all such articles now are published in print, we ask abstractors to be on the watch for those papers issued on compact discs (CD-ROM). The OWL is not in the business of citing non-serial publications and other material, such as books, field check-lists and correspondence.

Use your judgment to decide whether a paper may be of interest to any ornithologist in the future. Items from newspapers and popular-level magazines are not appropriate. The Regional Coordinators and editors can decide if any citations should be omitted. Owl does wish to cite articles that refer mainly to domesticated birds (*e.g.*, physiology, veterinary medicine) but only if they are of broader interest or application to ornithology. Please include biographical notes of ornithologists, and all notes correcting previously published material in that serial.

Books are not to be routinely cited in OWL. The distinction is that books have chapters or sections that cover a single topic (*e.g.*, breeding, migration, conservation, diet). Publications that present a collection of independent papers are to be cited in whole or in part. The independent papers have their own bibliography and cover topics that may be duplicated or overlapped in other papers in the same work but

usually cover a different topic or geographical study area. About the only exception to this rule re citing books is when the text is of a broader, non-ornithologically specific topic, such as animals, forestry or fisheries management; if one or two chapters pertain to topics of interest to ornithologists, these separate chapters can be cited in OWL.

It is very important that the abstractor scan all material in each issue of their serials for possible inclusion in the OWL. Each abstractor is totally responsible for all papers contained within each issue of their assigned serial. Please review all the various topics included in the Subject Code List to gain some appreciation for the level of detail of the subject matter we are interested in including within the database. (See also the detailed discussion under "Subject Codes" at p. 19 below.)

Distributional notes and papers need to be scrutinized (see "Distributional Papers" under ABSTRACTS below at p. 10), as not all should be cited. Raw count data or tallies that are not accompanied with some analysis are not for citation (e.g., Christmas Bird Counts, migrant hawk counts).

Many abstractors scan more than one journal, a practice that we welcome. If you wish to take on another journal or even cite a paper from what you think is an obscure serial, PLEASE check with your Regional Coordinator first, because someone else may already be routinely scanning it. Some abstractors handle journals published outside the geographic realm of their Regional Coordinator. Therefore, keeping careful track of what is being covered and by whom is necessary. Conversely, if you intend to drop any journal you are currently reviewing, **please** advise your Regional Coordinator immediately.

DATA FORMAT GUIDELINES

SUBMISSION OF MATERIAL:

Abstractors and coordinators must work together to keep the database as current as possible. OWL has no annual schedule for submission of material, but the sooner it is received, the sooner it becomes available to the database users. This is most important for the major ornithological serials; ornithologists in other parts of the world will more rapidly learn of these papers. Accordingly, try to submit your material at least twice a year, if you can. Please keep in touch with your coordinator, particularly if you are having problems keeping up with your journals. If you will be delayed in scanning any of your journals for more than ~9 months, please notify your coordinator; major ornithological journals should not be held up for more than 5–6 months after publication of an issue. Inform your coordinator if, after a year, you do not find any papers to be cited in your serials. If your coordinator or the OWL editor asks you about a submitted entry, please respond as soon as you can lest the material be delayed.

Try to scan and report one or more complete issues (e.g., a full volume) in a single submission; that is, do not report part of an individual issue. You may submit single entries from obscure, non-ornithological journals or large batches of material from several different journals in one spreadsheet file. Please check your material carefully before sending it to a coordinator. Watch for misspelled names (especially authors, initials, & places), not simply because we like accuracy, but because misspelled names will escape later computer searches and cannot be spell checked by any software.

Keep a record of what you have scanned and submitted to avoid duplication; never resubmit previously submitted material unless requested to do so. Editors and coordinators must promptly acknowledge the receipt of readable files, since these may become garbled or lost in transmission (see Appendices I and II). If you do not hear from your coordinator within a few weeks after e-mailing a file, follow up with an inquiry about whether or not it was received and readable. Please allow that the Managing Editor or Regional Coordinator may be on an extended trip.

DATA ENTRY:

These guidelines require the use of a computer by all OWL abstractors. Material can be submitted by only two methods into the OWL database: (1) via a spreadsheet where the various fields are in columns or (2) directly online using the special data entry module at the OWL web site, where the data can be then entered for each record, field by field. The spreadsheet files are to be submitted via an email attachment through the designated Regional Coordinator or editor. The spreadsheet method allows a careful review after data entry by the abstractor, as well as ability to duplicate some of the information (e.g., serial name and vol. year and number) from one record to another. For first submissions under these guidelines, abstractors should send a small file of a dozen or two records for review. Do not submit files in ASCII text or word processing format or pasted within the text of an e-mail message unless instructed by an editor to do so.

OWL Database Direct Entry (online)

From your web browser, access the data entry module through the BIRDLIT.ORG web site. Further instructions will be provided at the web site about how this online data entry operates. You will still need to follow the guidelines below about how and what material is to be placed into each field. Because of some programming differences, some field names in the online data entry module may have slight variants from the names used in these guidelines. If you feel uncertain, please contact your Regional Coordinator.

OWL Spreadsheet Data Entry Template (off line)

For offline data entry, OWL now uses a spreadsheet template in Excel, Lotus, Quattro Pro, or similar software applications. If you do not have spreadsheet software, a Free Ware spreadsheet application will be made available to you (i.e., a simple application that is in the public domain and free to any user). Otherwise, please advise your Regional Coordinator of which version of software you are using (e.g., Excel 2000, Lotus 2.x, Quattro Pro 10), and the appropriate template will be provided that can be opened by that version. (If you do not know which version you have, then go to HELP on that application's menu and click on "About ..." to see the version number.)

A template file is being sent along with these guidelines to new abstractors; if you need a new copy of the template, please request one. Note that the first blank record entry (Row #3) is below the column headings. Row #2 gives a sample of the data to be placed in that column. These samples have many more cases of how some unusual data are to be arranged and placed into their respective fields. Please name your own submission file with the following file name style: AAAMMY.* where the first set of letters are your initials (3 or more letters), two digits for the month of submission, two for the year and the extension (*) assigned by your software for this spreadsheet (e.g., ABC0307.xls, XYZab0708.wb3). With many dozens of files being sent by abstractors every month or two, it is essential not to have similar names on different files. Please do not use the template name as the data file name.

We have prepared a custom OWL dictionary that will only be used by the editors. This dictionary has more than 52,000 genera and species/subspecies names, currently accepted subject codes, some geographic names and many technical keywords. Most of the trinomial names are found in the Third Edition of the Howard & Moore checklist (more about names and taxonomy below). Abstractors will not need this dictionary, but they are asked to routinely spell check their own data using their software's spell checker. Only the fields of Author, Title, Journal, Address, and Abstract should be checked to at least eliminate common typos. The abstractor is the only person who has the published paper before him to verify the names and initials of authors, their addresses and geographical place names. Again, any misspelled names and terms are very unlikely to be found in a later search of the OWL database, thus reducing the chances of that record from ever being found. Correct spelling is critical in this database.

CITATIONS:

We will greatly appreciate your adherence to these instructions on format. They are essential for full use and access of these data in the OWL database. In addition, since the Managing Editor processes several thousand citations per year, the fewer that have to be fixed, the better.

Each citation must give the following information in its own data field: **author(s)**, **year of publication**, **title of paper**, **source** (usually the name of a serial, and the vol. and page numbers), **author's address** for reprints, **Abstract** (optional, but very important) and **key words** (see below). These items must be separated from each other into their own respective data fields. An abstract and list of the species' names should be included in most cases.

Please be very careful in spelling. Computer searches will fail to find misspelled names of authors, places, and taxa. Editors have a very limited capability to check local geographic names or author names and initials. Unlike any printed list of records, users will be forced to search for records using a set of criteria. This means that they are using only a handful of phrases, words, or subject codes to find a whole record. They will not see any records that do not meet their search criteria.

Watch out for accent marks and special letters because some computer programs cannot handle them and may replace them with meaningless symbols or even remove the letters at that point. Accent marks in the Romance languages usually come through, whereas those in Scandinavian and Eastern European languages and letters in the Cyrillic alphabet often do not. Check with your Regional Coordinator to be sure that the marks or letters are being transmitted satisfactorily. If any doubt, submit the name in its English form without any diacritical marks (e.g., Møller to Moller, Kregowców to Kregowcow). The template has a cell with many common special letters and characters; copies of individual characters can be made and placed in the text of the cell where needed. The use of any other characters not on that list may be lost in the data transfer process. We regret that our software cannot accommodate all such characters.

GENERAL DESCRIPTION OF FIELDS:

Below are details of what data to insert into each field of either the online database entry module or the offline spreadsheet template provided to you by the OWL coordinators. The ten basic fields are in both these data entry forms. They are {Authors}, {Year}, {Title of paper}, {Serial}, {Volume}, {First Page}, {Last Page}, {Address}, {Abstract}, and {Keywords}. Field names are identified within the text of this manual with curly braces; column assignments in the spreadsheet are indicated after the field heading in brackets. Two additional fields are for {Abstractor initials} and {Abstractor email address} in the spreadsheet template. The only fields that must end with punctuation are the {Title} and the {Abstract}; {Serial} might end with a period, if an abbreviation is used; all others do not typically end with any punctuation.

{Author(s)} [col. A]:

List the **sole or principal author** with the surname first, followed by a space and initials, without any periods, commas or spaces (e.g., Smythe DJ). If two or more authors, place a semicolon and a space before each of the other author's name and initials. List all authors. If the "author(s)" is/are an editor(s) or similar capacity, place after the last name a semicolon, a space and "Ed(s)." [e.g., Smythe DJ; Jones LE; Eds.]. Capitalize only the initials and the first letter of an author's surname. If the author is a "Jr." or similar attribute, use the form "Jones Jr., LE" in this field. If the authors are listed as John and Mary Doe, list complete names separately (Doe J; Doe M).

If you are in doubt as to the surname (e.g., Chinese, Hungarian), give the whole name. For most Hispanic names, the surname is usually the penultimate, e.g., list Jose Vargas Araya as "Vargas A, J" and note the rare use of a comma in this field. For guidance about which name is the surname, check Literature

Cited in the paper itself for other articles by that author. If any names (or other information) may appear confusing or unconventional, call this to the attention of the Managing Editor.

{Year} [col. B]:

Cite the year of the serial as given on its cover. If the year of issuance is different from this and the paper deals with taxonomy, indicate the year of publication in the {Abstract} field.

{Title of paper} [col. C]:

Cite the title of the article in its original language, if English or a widely used European language. If the original title is not in English, also give an English translation in brackets, and, if possible, one furnished in the paper. If a title (and published translation, if any) has typographical errors, do not correct them, but simply insert "[sic]" after the error. If the title is poorly translated or no translation is given, the abstractor or Regional Coordinator must provide one, if possible, and put it in [brackets]. If you are unable to translate a foreign title confidently, try to find someone who can. We do not want to omit important articles because the title has not been translated into English. All entries in the OWL will have an English title provided. If typographical errors are in the title for important words that may be used in a database search in the future, use the correct term in the {Abstract} or {Keyword} fields.

Capitalize the first word of the title, and all proper nouns, genera, and common English names of birds. If you add any words into a title, place them in brackets; for translations already in brackets, use parentheses for inserted material. Do not use {curly braces} in any record field. If the title includes the locality of the study and that place is not likely to be widely known, insert the name of the country or state (*e.g.*, Birds of Cottonwood Springs [Nevada]). This is a common problem with reports or studies in local journals. For example, the title, "Seabird monitoring on Skomer Island" will mean little to most readers. Although you may place the location either in the title in brackets [Wales] or work it into the abstract: "off the coast of Wales," it is preferred to add any such qualifier in the {Abstract} or {Keywords} fields to leave the title intact. Title translations may have such place names inserted, without additional brackets, even when they were not expressed in the original language of the title.

{Source} [cols. D–G]:

Give the **name** of the serial publication containing the paper in the {SERIAL} field. If the name contains more than one word, you may abbreviate it using the standard abbreviations used by BIOSIS and given in its *Serial Sources for the BIOSIS Previews Database*. If you do not know the abbreviation from previous citations or do not have access to that list, give the full name of the serial. Do not abbreviate the names of journals with one-word names, (*e.g.*, Behaviour, Ecology, Mammalogy). In a few uncommon cases, the publication's name may be little more than some institution that is publishing the paper or the name and place of the conference.

Most serials have consecutive pagination within each volume; therefore, give only the volume number. If each issue of a volume is paged independently, or if in doubt about separate pagination, include the issue number in parentheses without spaces (*e.g.*, 23(3), 46(1–3), 77(3&4)). Insert the **pagination** into their respective fields {FirstPAGE} and {LastPAGE}, if applicable. Convert Roman numerals to Arabic. In a few cases, volumes may belong to separate series (A, B...) or have two sets of numbering; provide the series or old numbering in parentheses immediately after the current volume number. EXAMPLES: 106B, 23(79). The object of this requirement is to ensure that users of the OWL can find the correct volume and issue being cited.

Collections of papers such as conference proceedings are now beginning to be issued on compact discs (CD-ROM). For any such papers that were also published separately in a serial, cite that latter source, if within your purview, because it is likely to be more widely available. Note that the OWL never cites publications of just abstracts, such as the abstract paragraphs provided at some scientific meetings. Only

full papers are to be included; usually such papers have full discussions, describe materials and methods, results, conclusions, and contain citations or a bibliography. For citations of papers that are only on disc, mention that format as “CD-ROM,” followed by the pagination. If the paper is also identified by its place on the program (e.g., Symposium 3, Paper 2), give such identifiers. Be sure to note also the name and location of the organization publishing the CD or other media.

The OWL accepts that some publications are difficult to cite properly. This includes, but is not limited to, unnumbered reports of government agencies or other entities, and special symposia or conferences. The important information must be included either in the {Serial} or the {Abstract} fields to allow future users to find the paper. If they cannot find the paper because of faulty information, then the abstractor's and editor's efforts have been wasted.

{Address} [col. H]:

Give one author's address so that OWL users can request reprints or correspond with the author. If two or more authors, the first author usually handles reprint requests. If a junior author is designated for reprint requests, give that author's initials (or name, if more than one author has the same initials), followed by a colon before the address. If no address is provided in the publication, insert "No address given" or "No address available" to make it clear that this was not an abstractor's oversight. Use the address of the editor or publisher (etc.) only if reprints or copies are stated to be available from that source. If you know that the published address is obsolete, or if two addresses are given, use your judgment to provide the most current one. Do not spend time researching the current address in other sources. Where clearly the publication is only available at cost, give the price and ordering information.

In the addresses, abstractors may use standard abbreviations where possible to save time (e.g., Univ. vs. University). The use of prepositions, articles and most conjunctions in business or academic addresses (e.g., Dept. Biol. Ecol., Univ. N. Tibet) may be dropped. Be sure to include the name of the country. Names of cities and regions may be left in their original form or changed into English (e.g., Wien = Vienna). For countries, use either the English name or the country's own name for itself (e.g., Germany or Deutschland, not Alemania). Include the author's **e-mail address**, if any is available, putting it after the postal address in this format: semicolon, "EM:" and the address, with no period at the end unless it is part of the address. EXAMPLE: Illinois Nat. Hist. Surv., 607 E. Peabody Dr., Champaign, IL 61820, USA; EM: r-larkin@uiuc.edu Accuracy is especially important for e-mail addresses because an error in a single character will prevent the message from being delivered.

If the complete paper is available for viewing through an on-line service, please provide the URL address for the paper in this field.

{ABSTRACT} [col. I]:

The abstract is a brief summary of the essence of a paper. Provide an abstract, even one or two words, whenever the subject of a paper is not evident from the title. Although we have no real limit on the length of the abstract, please try to provide up to 4–6 sentences. Abstracts are not to report actual findings, such as clutch sizes, mortality rates, or morphological measurements. If the title is potentially misleading or unclear, the lack of an abstract lessens the usefulness of an entry. For example, below are titles of some papers that should have had abstracts but did not in the older ROL supplements:

“Breeding of Hooded Crow *Corvus corone* in Israel.” (Is this a new nesting record for the country or some aspect of normal breeding behavior or reproductive effort? If latter, what specific aspects?)

"Biology and behavior of *Tiaris fuliginosa* in captivity." (What sort of biology and behavior—breeding, vocal, etc.? Be as specific as possible.)

"The eclectic Eclectus Parrot." (What specific topics are reported in this paper?)

"Satin Bowerbird displays are not extremely costly." (Is this referring to energy costs or predation losses, etc.? Identify.)

"Do male Redstarts display only to mates?" (Answer all titles posed as questions with the conclusion of the paper, even if only "yes" or "no.")

"Remarkable behaviour of a Hen Harrier *Circus cyaneus*." (What was this behavior that was so remarkable but not enough to include in any abstract?)

"Comparative vocalizations of five columbids." (Make sure all five taxa are listed in the {Keywords}.)

"A reply to Smith and Wesson." (Be sure to provide the abbreviated citation for this earlier paper in the {Abstract}.)

"A study of the Laughing Turtle-Dove." (What kind of study? Describe in {Abstract} or {Keywords}.)

"Peregrines (*Falco peregrinus*) at Mt. Dandenong, Vic. (Australia)." (Nothing appeared in the abstract. What topics are discussed in this paper? Migration, nesting, diet, courtship, productivity, conservation, etc.?)

"Gulls in a field." (What were they doing? What is the topic of this paper? What species of gulls?)

"How Rock Thrushes differ." What aspect of their biology differs? Song, plumage, food or habitat preferences, etc., and over what geographical or seasonal range?

The primary purpose of the abstract is to show the scope of the paper in order for a user to decide if he/she wishes to pursue it for their research. Another major purpose is to provide words and phrases that may be used in a search of the database that are not included in the title; the more 'hooks' that a record possesses, the more likely it will be found in a later search. To decide whether an abstract is needed and what it should include, consider some of the following: the major findings of the study, total species found, clarification of the title (particularly if in a foreign language), correction of errors in the title, importance of the paper to ornithologists, and the accessibility of the journal to most users of the OWL. In the last case, if this is a serial with limited distribution, it is important to describe any minor findings or data that will help the OWL user to decide if the paper is worth pursuing. Further, consider what topics or "key words" are not mentioned in the title that might help users find this paper in the OWL database and use those terms in the abstract or in the list of keywords (below). It is important to mention in the {Abstract} or include in the {Keywords} field any additional topics that are not suggested by the title.

Style: The actual abstract of the paper may be used in its entirety in this field. However, it is very important that the original abstract be identified as such; this should be done by inserting "(Author[s].)" at the end of the copy of the abstract. Great care must be made if the abstract is retyped that no mistakes are made in the new copy.

Otherwise, write the abstract as concisely as possible. Do not repeat the information in the title using the same words. Use the active voice with the author(s) as the subject. Avoid "there is," "there are," and "which." For papers whose title is posed as a question, a simple "yes" or "no" might be all the abstract that is needed. The abstract may correct mistakes in the title or clarify other bibliographic problems, but must not convey the abstractor's opinion about the study or provide any new information.

Write dates in day-month-year format; abbreviate months of the year with first three letters and no terminal period: 23 Jun 1992, 24 Aug, Apr 2006. Give ranges of dates as: "1992--96" (note use of two hyphens). Use only metric measurements (pr/ha, ≥ 3 ngm, 2500 m, 45.5/sq km).

All OWL records or citations are independent of each other and may not be on our Web site or subsequently extracted by a user of the database in the same order that you submit them. Therefore, if one paper specifically comments on another, give its reference, *e.g.*, Jones, 1994, *Emu* 94: 123-125; not "see following/preceding entry" or "elsewhere in this issue." Cross reference such interrelated papers whenever possible.

Taxonomic Papers: (e.g., D110, D114) Please indicate in the {Abstract} the family of any new avian genus and the common name proposed for any new species (optional for subspecies). If the year of this volume and the year of publication are different for a paper describing a new taxon or providing a new scientific name, give the actual year of publication in the {Abstract} and explain briefly the situation. The latter date is considered by the Code of Zoological Nomenclature to be the date of mailing of that issue of the serial, regardless of the stated year of that volume. Users of the database are going to be searching for the particular serial and need to be able to find it by its stated year no matter the actual publication date. Example: Vol. "X" of a serial is for the year 1990, but the last two issues were not mailed until well into 1991. The {Year} field has the stated year of 1990 and the {Abstract} the year of publication (1991). These later dates are to be ignored unless the issues contain a taxonomic paper describing a new taxon and where such information is known by the abstractor. Otherwise, the actual year of publication mailing is not to be indicated in the OWL record. Descriptions of new parasite taxa fall under code C104.

Scientific Names, Acronyms, & Hybrids: Within the {Abstract}, you may abbreviate scientific names so long as it is clear what taxa are being referenced (e.g., *T. merula*, *M. m. melodia*). **All scientific names must be completely spelled out** in the {Keywords} field (see below). Do not italicize any names or words anywhere in the record. Do not use undefined **acronyms** or abbreviations in an abstract. Each OWL record must stand on its own. If an acronym or abbreviation is used in the title, do reuse it in the abstract, but fully explained or defined. What may be a commonly used acronym in one region of the world, may not be known elsewhere. Identify the species of actual or suspected parents of **hybrids**. Put a single space before and after the letter "x" between the scientific names of the parents.

Distributional Papers: The OWL simply cannot include every paper reporting a single observation or record for each species (the C300-series subject codes). We must limit vagrant records to the first **two** for that taxon in that country, state or province. County or district records are not to be cited. The {Abstract}, if NOT the {Title}, should state the **significance or importance** of the record, e.g., "First report of the Great Blue Heron for Tibet." With such citations, give the very basics of the record (if not in title): date(s), general location (county or district is sufficient), how documented (e.g., specimen, photo, sight) and its 'importance' (*i.e.*, 1st or 2nd record).

Please cite all papers that review the distribution of any taxon over an entire country or one or more states or provinces. Do not cite local checklists (*e.g.*, county or local parks or refuges) but cite statewide or province-wide or wider regional annotated lists. Thus, a paper that reports the Nth record for a species, reviews the previous records, and offers some explanation(s) for the vagrancy pattern should be cited. Cite the subsequent individual records (after #2 and without any analysis or summary of all previous reports) only if the paper also provides observations on feeding or other behavior and code the citation accordingly (*i.e.*, not in C300-series).

We want to include published individual reports of **significant breeding range** expansion or definite contraction---50 km may be significant for a local endemic, but that distance is not significant for widespread species such as the Osprey, Caspian Tern, or Peregrine Falcon. Try to include in the abstract some indication of the magnitude of the change in breeding distribution beyond the comparative "westernmost," "northernmost," etc. That is, state, where possible, how much farther north, south, east or west the record extends the known breeding range of the species. Individual reports of species wintering farther north (or south) than usual are not of much value to OWL, but summaries of such records are to be cited.

Do include in the C300-series major "birding" articles—where to find birds, equipment, and the reports of records committees. With records committee reports, try to give a summary of how many taxa were added to or removed from the country, state or provincial list and the total number now on the list; list the individual taxa added or removed in the keyword field, if less than about 15. Do not include papers on

small, local parks or reserves unless they are ornithologically important beyond that country (e.g., used regularly by an endangered species or a major portion of a species' population).

Language: If the paper is in a language other than English, at the end of the {Abstract} identify that language and state whether an English summary (or abstract) is provided (e.g., "Finnish, Engl. summ."). Do not bother differentiating between abstracts and summaries; list both as "summ." If no English summary is given, but a summary in another language is provided, list that language (e.g., "Chinese, German summ."). Abstractors may list every language in which multiple summaries are presented. NOTE: you may abbreviate "summ." and "Engl." but no other languages.

If abstractors wish to take the time, they may provide a second abstract in the original language of the paper. This will not be spell checked at any time and unlikely to be used in any searches of the OWL database. However, such a second version of the abstract may assist future users if they are more familiar with that other language. Such versions must still adhere to the restrictions on the use of non-English character sets. The translation does not need to be in brackets in the {Abstract} field. All information in the English and non-English versions of the Abstract must match.

{KEYWORDS} [col. J]:

Keywords and subject codes will be one of the primary ways most users will find an entry in the database. The database will contain 100,000 or more records. Nobody can start viewing that many records one at a time. The users must do searches of the database to extract possible papers of interest. Those searches will most often be based upon words, phrases, and subject codes as the user wishes. Think of the database as a large library, where the user can only get to books via an index or card catalogue of all the books. The search criteria the user selects are the only "keys" to finding a record in OWL. A user will only see the records that match his search criteria. All other entries will not be extracted and displayed, even if they actually do contain subject matter that would be of interest to that user. Therefore, it is very important that the abstractor provide as many terms, codes, and other means for a potential user to find each paper. Your work to prepare this record will be wasted if nobody can find it in their searches, even if it does contain specific information the user seeks; thus, try to include any term, code or other useful information here that is not in the abstract or title.

"Keywords" are words not already used in the title or the abstract that further suggest the subject matter of the article. They may be terms given within the article itself or ones that you choose. Technical terms, diseases, contaminants, or other special terms should be inserted here, if not included in the {Title} or {Abstract} fields. While keywords are not required for OWL abstracts, they are most helpful to someone doing a search. All OWL records must have subject codes (see below) that are also placed here. Use semicolons to separate each keyword and subject code; do not use any other punctuation such as periods or commas (e.g., "selection, habitat" must be made to read "habitat selection"). Avoid the use of plural terms when possible. You may list as specific keywords those found in a list under that subject code. Examples: anting (under B308), clear cutting (under B908), food storage (under D306). However, there is usually no need to repeat the main words of that subject code under {Keywords}, such as Kleptoparasitism, New taxa, Declining and endangered species, Vocalization. Word choice and word order here can be very important.

Scientific Names

To screen all scientific names for both proper spelling and for acceptable combination, they must be given in this field. This means that all scientific names of all plants and animals cited in titles or abstracts must also be repeated here. In the past, some abstracts were only composed of a list of scientific names. Such lists should now be placed only in this {Keywords} field and not in the {Abstract} field. If scientific names are not needed in the {Abstract}, they need only to appear in the {Keywords} to save time.

Provide only complete binomial or trinomial scientific names in this field, even if they are given in the title. Include the scientific names of non-avian taxa, such as dominant plants, parasites, non-avian prey or predators, if they are important to the record. Clearly reformat and simply state any names in titles that have any symbols, punctuation marks, abbreviations, or the subgenus or superspecies placed within them; give only the full genus and species plus subspecies, if provided. Do not use an initial for the genus or a species; e.g., does *P. pectoralis* refer to the genus *Pachycephala*, *Polystictus*, or *Prinia*? Generic names have added importance because they can be separately used for database searches. If a paper deals with a small number of species or avian groups as major subjects, identify them individually in this field up to a limit of about 15 taxa. All binomial and trinomial scientific names incorporated into the {Abstract} or {Title} fields must be repeated here for final spell checking. Do not write the scientific name in *italics* (or underlined). The common English name, if any, may be given in the {Abstract} if it is not in the title, but it is not required, although it should be encouraged in cases of rare endemics or similar rarely discussed taxa. There is no need to repeat full names in the {Abstract} that will have to be placed in this {Keyword} field.

We do not expect abstractors to be experts in avian taxonomy, yet we encourage you to be on the watch for obsolete scientific names. Such names are particularly prevalent in the non-ornithological literature. Do not change such names in the title, but, if possible, give alternative or the currently accepted name in the list of keywords, along with the obsolete name. We are not concerned with systematics. If one authority considers the form a full species while another considers it a subspecies OR a difference of opinion exists as to which genus in which to place it, either name (or both) is acceptable in the keyword list. Users of OWL must know the synonymy of all taxa for which they are searching. Refer to recent regional checklists published by the major ornithological societies or to any of the following or similar references:

- Clements, J. F. 1991. *Birds of the world: A check list, 4th Ed.* (and later supplements)
- Dickinson, E. C., ed. 2003. *The Howard and Moore complete checklist of the birds of the world*, 3rd ed., Princeton Univ. Press, Princeton, NJ, and Oxford, England. [incl. earlier editions]
- Gill, F., and M. Wright. 2006. *Birds of the world: Recommended English names*. Princeton Univ. Press, Princeton, NJ, and Oxford, England.
- Monroe, B. L., Jr., and C. G. Sibley. 1993. *A world checklist of birds*. Yale Univ. Press, New Haven, CT

Choosing Subject Codes

Every entry must be furnished with one or more alphanumeric codes that identify its subject matter. The codes enable rapid computer searching of the entries. The codes serve as surrogates for terms and concepts that can be easily identified in this manner. Just as books in a library are given catalogue numbers to shelve and categorize them, so, too, do we want to assign one or more subject codes to help classify the paper. This will help future researchers to find them. The codes greatly reduce the need for most keywords that may otherwise apply to this paper. Further, codes eliminate some subtle problems of language and simplify searches based on some words that may be spelled differently in English usage (e.g., behavior, behaviour) or where terminology (e.g., ringing, banding) might vary. Abstractors should assign the codes because they have the papers in front of them and are the best ones to judge their content. Editors and Regional Coordinators reviewing the coding may change it based on their judgment of the title and the abstract. Place the primary subject code (see below) at the start of each {Keywords} field entry.

Please use the current list of codes, included with these guidelines, which is slightly revised from previous versions. Although the large number of topics and subtopics may seem daunting, we have found that it actually makes classifications easier. Coding a paper according to its main subject is often problematical because many papers deal with more than one subject. We encourage you, therefore, to use as many subject codes that may be applicable. Further, please review the complete list of subject codes carefully before you start each abstracting session.

In practice, you may find it helpful to print out the list and have them separately available while composing citation records. This will allow you to scan the whole list and find the appropriate category more quickly than by scrolling through a computer file. Hard copy still has its uses.

Code a paper according to what are its main subjects, bearing in mind that the title is sometimes an imperfect guide. The code list is first divided into some 17 major topics (Breeding habits, Conservation, Migration & Navigation, etc.; all ending in "...00"), which are then further subdivided into two or more subtopics. Each subtopic is only related to its own major topic. Note, for example, that the term "habitat" appears under several unrelated major topic headings: B716, B910, C908, C926.

Use as many subject codes as you deem applicable to that paper up to about 15. Papers that deal with more than one major subject may be put under "Avian biology and life history" (B100-series), choosing the geographic region where the study was done (NOT the range of the taxon). Since this heading is general, try to use it sparingly because it can become a dumping ground for many papers and will not be easy to search. When using one of the B100-series, also cite the subtopics that are applicable. General life history papers do not require a list of all the subtopics; that is, if more than about ten or fifteen subtopics are suggested, you may use the more general major topic(s) alone. However, understand that the use of the B-100 series codes is not as likely to attract a user of the database as the more specific codes. Including a code or keyword that may not be totally accurate is always better than to leave it out and allow the record to be missed by some database searches. We prefer to let the future OWL database user discard a record rather than let them miss the record in their searches. If in doubt, use all codes.

Under each main heading, choose a subtopic if possible to simplify searches. If a paper treats more than one subtopic under a main heading (*e.g.*, nest, eggs, parental care, growth of young under Breeding Habits, B700), try to list all the subtopic codes. Avoid the use of any subject code that ends in "00" whenever possible; listing the various subtopic codes in the {Keyword} field is far more useful to future users of the database.

"Behavior" can be interpreted as covering almost everything a bird does, but we have restricted it (see B300-series subtopics), while placing "breeding," "migration," and other "behaviors" under other headings. Use "Conservation" (B900-series) for papers about the status, management or threats to endangered, threatened, or declining species, species of special concern, or aspects of ecology that specifically relate to them; it also includes papers regarding management of habitat and similar conservation activities. Other papers about such species that are not directly relevant to conservation should be classified elsewhere, *e.g.*, Breeding habits, Ecology, or Genetics. Do not allow titles with "nesting ecology," "productivity," "costs" or similar broad terms pass without some clarifying codes or terms in the {Keywords} field.

The Avian Biology and Life History (B100-series) and Distribution/Zoogeography (C300-series) sections include subheadings for the Old World/New World hemispheres (but NOT Northern/Southern any longer). However, you are urged to list all the inclusive geographic areas in the {Keywords} that are applicable. The choice of subheadings in these two sections depends on the geographic scope of the paper, not the total range of the species (*e.g.*, *Falco peregrinus*). Use the General or Worldwide subheading only for those Avian Biology or Distribution/Zoogeography papers that have no specific geographical element.

Additional codes that refer to subordinate subjects in the paper may be put in this field along with any keywords. For example, if a paper deals primarily with parental care but also mentions foraging habits and reproductive effort, code it under B718, and add D306 and C918. Papers dealing with predation on birds by avian predators must be considered from both prey and predator perspectives and coded accordingly (*i.e.*, C916, D302).

In a sample of 4300 recent citations, 31% had only one subject code, 23% had two, and 20% had three. The rest (36%) had up to 16 subject codes. We would like the majority of incoming records to have at least three or more subject codes. In summary, the more topics that can be identified with each paper, the better the chances of it being found in a later search of the database. In the same sample, only 10% had a single Keyword (*i.e.*, one subject code and nothing else); 23% had a code and one other Keyword; half of

the records had four or more codes and keywords with a maximum of 41 entries in the Keyword list. In the same sample of 4,300 records, 20,313 keywords and codes were used; 11,706 were subject codes. The top 20 subject codes used (in descending order with a generalized subject topic) were as follows:

C914 (censuses); D302 (diet); B716 (nests); C318 (Nearctic distribution); C908 (habitat selection); B118 (Nearctic life history); B908 (environmental changes of man); C918 (reproductive effort); D306 (feeding behavior); B710 (eggs and incubation); B702 (breeding phenology); D904 (migration timing and counts); C916 (victim of predation); B904 (imperiled species); C922 (community and biodiversity); B718 (parental care); B910 (habitat conservation); B720 (vocalizations); C906 (climate effects); D702 (species identification); and C926 (non-breeding habitat selection).

There are two important OWL topics that have not been discussed clearly in the past: **When** and **Where** of the study

WHEN: If the subject of the paper has some element of time that is important to the subject, make sure it is reflected in the Abstract or Keywords. Examples: "Earliest nesting of the Whooping Crane" might mean earliest laying of an egg (e.g., May 4) or a new historical first nest (e.g., 1845). "Counts of Dunlins" might be at any time of the year (and place—see below).

WHERE: All abstractors must remember that neither the publication's name nor the address fields are usually included in a typical search of the OWL database. Either may still be grossly misleading as to the actual location of the study. Further, a title may only mention a locality that is known to that readership and not be familiar to others. Most searches using geographical names are not going to be using a local name (e.g., small town, water body, mountain, island); they are more likely to be using the geographical name of a Province, State or Country. The Dunlin paper in the previous paragraph could have been done at almost any Northern Hemisphere locality. "Notes on the breeding biology of *Sylvia nisoria* at Ottenby" should have "Sweden" added to the Title or used in the Abstract or Keyword fields. If the title implies or states a geographical component, please ensure that the Abstract, Title (in brackets, if added) or Keyword fields mentions the Province, State or Country. The use of the adjective form of a nationality (Chinese, French, etc.) does not allow future OWL searchers to find that entry when searching for that country. Avoid such usage or list the country's name in the {Keywords}.

In short, the Abstract and Keyword fields are to fill in the information gaps that the title does not fully explain. Future users will greatly appreciate the added information you provide in these records.

Notes on the Practical Use of the Subject Codes

The following comments may help abstractors and editors more clearly understand the uses of the various Subject Codes. Only codes that clearly have caused some confusion in their intent and usage are mentioned below. A few others are mentioned to clarify their subject matter or usage. Keywords and subject codes are one of the principal windows on the record; the {Title} and {Abstract} being the other major avenues of finding records in a general search of the OWL database. The better the Abstract and more codes and keywords that are used, the more times that record could be found in future searches of the database. As indicated in these guidelines, these codes avoid complications with word spelling and word or phrase choice that can vary, even between English speaking nations (molt v. moult, ringing v. banding). The sequence of the codes or multiple scientific names in the Keyword field is not really important, although the more important codes should be near the front of the list to make edits a little easier. When in doubt, please use all subject codes that may apply and let the future user of OWL decide if they wish to pursue the citation.

B908 is any response of birds to an activity of man that is not directed specifically at birds. This code does not include hunting (see B508), wild bird trade (B914), or fire (C906). The effect may be related to

nest sites, roosts, food, survival, etc. This bird activity can be following a vessel, tractor or even a walking man for food, as well as response to large scale impacts to the environment related to forestry, farming, development, etc. The birds can be impacted in a positive or negative way and immediately or over a long period of time. Use of buildings or other structures of man for nest site, food, shelter, or water are also included, provided they were not specifically designed for use by birds.

C914 refers to population trends and estimates, censuses or surveys, estimates of breeding or wintering densities, etc., while D904 refers to counts of migrants passing one or more points of observation. Latter are uncommonly estimates of or indexes to the species' population, as they normally indicate only magnitude and timing of migration at that location for a season. If migration counts are directly related to a population trend or estimate, then both codes are to be used. C914 is one of the most frequently used codes in OWL.

Use C916 for birds, eggs, or young as victims of a predator. Use D302 for the food of a bird. C916 includes killing and usually consumption of conspecific eggs, young or other flying birds; D302 is used to describe the diet or food of a bird. Use both C916 & D302 if a bird, egg or young is a prey item of an avian predator. B302 is when two birds have an altercation that may not be a result of one trying to kill and eat the other. C916 is one of the most frequently used codes in OWL.

C922 covers competition between species, not conspecifics, as well as species diversity in an ecosystem. Conspecific social interaction is usually under B314, such as dominance within a flock of conspecifics. C914 and C922 may be hard to separate. Former is about censuses, surveys, population trends, etc., while the latter is more involved in diversity, competition and causes for species richness, or lack thereof. If paper uses census data and then goes into diversity or related topics, then do not hesitate to use both codes.

C924 usually includes descriptions of diet (D302) and sometimes feeding behavior (D306) of the avian species in an ecosystem. This topic is about trophic levels, predator–prey relationships, energy cycles in the ecosystem, and similar relationships.

C926 is a special case of C908 that is focused on habitats for wandering, migrating or wintering birds. C908 is focused on general habitats, breeding habitat, habitat changes, or habitat used by non-migratory populations. Note that B716 is focused on the nest and its substrate and not the surrounding habitat. It is possible that all three of these subject codes might be used for a paper.

D105 includes the theories about avian biology, such as evolution of the size of eggs or clutches, body or coloration variation, mating systems, and migration, not just the evolution of species.

D302 is 'what' birds eat, while D306 is 'how' they forage. Both are often used in the same {Keyword} list for a paper. The former also includes data on prey base, nutrition, as well as diet. The latter includes hunting success rates, how the sexes forage separately in their environment, how prey is captured, as well as how food is carried and stored. Note that storage may imply learning where the cache was to be retrieved later; use B304 for that aspect. If the prey is being fed to the young, then B718 should also be added. D302 and D306 are two of the most frequently used codes in the OWL list of subjects.

D702 may include information on the separation of the sexes and ages; there is no need to incl. D704 if D702 is used.

The E100-series cover both the descriptive anatomy, as well as the functions of that organ system.

The papers that are given the Techniques codes (E500-series) often utilize some actual bird data. Provide the codes for these other subjects, as well as the names of the taxa. Examples: (1) Paper on how to calculate mortality rates in birds uses one or more actual species' data sets; use E514 and C910. (2) Paper uses special imaging equipment to determine the age and sex of individuals of a species; use E516 and D704. More than one techniques subject code may be used for one paper. An unusual technique that only falls under E510 might list other codes in this series that are separate techniques.

{Abstractor's initials} [col. K]:

The new OWL database will carry abstractor information for each record. For those using the spreadsheet template, this can be done by entering your complete initials in the first record only (see next field) and replicating it down the sheet for as many records as needed. Please note that we discourage the use of just two initials, as over time we have many duplicates of such two-letter combinations. If you do not have any middle initials, your surname should be used, either completely or truncated: "B.Simp." or "B.Simpson." The OWL wants to ensure that all abstractors receive full credit for their efforts, and this is the main way we can track such work. Use periods between initials but no spaces. This field is to be completed, even if no actual {Abstract} is provided.

{Abstractor's email address} [col. L]:

The OWL data entry template will carry this abstractor information for each record; it will not be available to the public or general user of the data. It is discarded before the data are sent for uploading into the database. The purpose is to allow an editor or coordinator to contact you concerning some question on that record.

Once the information for these last two fields has been entered into the first record, they can be easily duplicated by using the edit functions of the software. The two fields are blocked and copied. Copies are then made in the rest of the two columns as far as records extend downward in the spreadsheet. If you are unfamiliar with this procedure, please try to learn it. It is a very useful trick for replicating data in other fields, too (e.g., {Year}, {Serial}, {Volume}).

DISSERTATIONS:

Please inform anyone you know that the OWL now cites doctoral dissertations about any aspect of ornithology, going back to those completed since January 1, 1995. Authors who wish to have their dissertations included are responsible for preparing these entries, not abstractors. The entry should be in OWL text style and must include: **author's name, year completed, title, "Ph.D. [D.Sc., et al.] dissert."** + **university name and location, author's current postal and e-mail addresses**, and an **abstract** up to about a dozen sentences. The OWL Editor will add the subject codes based upon the abstract.

EXAMPLE:

Dove CJ. 1998. Microscopic variation in downy feather characters of Charadriiformes (AVES): A descriptive and phylogenetic analysis. Ph.D. dissert., George Mason Univ., Fairfax, VA. Smithsonian Inst., Div. Birds, NHB, MRC 116, Washington, DC 20560; EM: dovec@nsmnh.si.edu
Microscopic variation . . . data sets.

The author should submit the entry to the Managing Editor via e-mail.

NEW OR RENAMED JOURNALS AND CORRECTIONS TO PREVIOUSLY PUBLISHED PAPERS

Abstractors are asked to submit records for any new, renamed or discontinued serials to the OWL database. Published corrections should be cited under new major topic code B070 and refer to the original citation. They should also provide the same {Keyword} list as the original paper citation in OWL.

SPECIAL PUBLICATIONS

We no longer treat collections of papers such as symposia and conference proceedings as Special Publications or as a single citation. For such works, prepare one entry for the entire volume/issue plus

separate and completely independent entries for each of the papers concerning avian biology. While this means that each will have to be subject-coded, it will make it easier for researchers to find specific papers of interest to them. The record for the whole work should suggest the general subjects covered, how many papers are included in that publication, and—if not entirely about birds—how many are individually cited elsewhere in the OWL. For example, a symposium on forest management might contain 35 papers, of which only 15 are of potential interest to ornithologists. Those 15 are then entered individually for a total of 16 citation records from this one publication.

OWL STYLE AND FORMAT

Now that the OWL is available on the Internet and no longer being printed, we all have to "think electronically." This means paying closer attention to the content of the {Title}, {Abstract} and {Keywords} fields and ensuring names and places are correctly spelled. Below are some additional tips and points regarding OWL entries:

1. All {Titles} and {Abstracts} must end with some form of punctuation (period, question mark, or exclamation point). {Keywords} do not have any ending punctuation.
2. The only punctuation to be used in the {Authors} or {Keywords} fields is a semicolon, ex. for special circumstances in the former field (see page 6).
3. There is no need to repeat any word or term found in the {Title} or {Abstract} in the {Keyword} field, except for scientific names of plants or animals.
4. You may abbreviate postal addresses, using standard abbreviations (see below list). Make sure, however, that addresses are understandable so that mail requests can get through. Abbreviations will save you, the volunteer abstractor, considerable time in completing the {Address} field. Their use is not required. It is your time that is involved. Never use any abbreviations in the {Abstract} or {Keywords} fields; if any acronyms or abbreviations are in the title, spell them out in the {Abstract} or {Keywords}.
5. Use the correct postal codes for countries, states and provinces; at the end of the address be sure to include the name of the country. Canadian postal codes are ANA NAN in alphanumeric format and follow the provincial abbreviation without a comma. If available, please cite an E-mail address.
6. We now believe that most Romance language accented characters and some common Eastern European characters will not be lost or affected in the processing of the data. However, some accents and other diacritical marks may be removed unintentionally and in some cases the result will be the actual removal of the character itself. This happens in the various conversions these data go through during processing. A name with a space or a missing character is of little value in any later search. See p. 6.
7. Similarly, do not use any subscripts or superscripts annotations or other special mathematical or scientific special characters in the abstracts; use, for example, the following: O₂, H₂O, km². Better yet, spell out such terms or use "sq" and similar abbreviations, as opposed to superscripts. NOTE: Do not use periods after abbreviations of units of measure, unless at the end of a sentence.
8. Use one hyphen to hyphenate words (e.g., storm-petrel), two hyphens between a range of values (e.g., measurements, dates, or pages), and three hyphens for the long dash in some titles. Do not put spaces before or after any hyphens.

9. Avoid the use of – or M-dashes available in most computer character sets because they look too much like hyphens and cannot be converted correctly between some data processing applications. Use 2 hyphens for the former and 3 hyphens for the latter symbol. Put a single space after all colons (e.g., 9: 45--57).
10. The abbreviations for the four cardinal directions are followed by a period: N., S., E., & W., while no periods are used in NW, NE, SE, & SW, or (if ever needed) NNE, ENE, WSW, etc. EXAMPLES: 123 N. Main St.; 25 km NW of Sydney.
11. You may use numerals and ordinals within all abstracts to save time: 1 bird, 3 eggs, 5 photos, 1st record, 5th annual report; even when they begin the abstract.
12. Do not use {curly braces} in any field. Use (paren) within [brackets] and vice versa.
13. Note that the action of a predator is to prey. “Predate” means to date before another date or to precede in time.
14. The sequence of the codes in {Keywords} can be in any order. We have no real limit to the number of subject codes, scientific names, or keywords that can be listed (actual field length is ca. 4 KB). The majority of papers have more than one topic; ergo, more than one subject code. If in doubt about two or more codes, use all of them and let later users discard the record.
15. Review your material carefully for completeness and accuracy before submitting it. The editors will not be spell checking the {Authors} or {Address} fields, as simply too many names of streets, towns and people are used for anyone to correctly spell check these names. Please! The abstractor is responsible to provide the correct surname, initials and address of authors. THANK YOU!
16. Please do not use of any subject code ending in "00"; list all applicable subtopic codes instead. Use the B100-series (Avian Biology) alone for life history studies and with other major papers that cover a wide range of topics. Usually, abstractors list up to about 12–15 subject codes and then use the geographically appropriate Avian Biology code to cover any remaining minor topics.
17. Do not use more than 2-word combinations as keywords unless really needed. Variations in word order (A-B-C-D, D-A-B-C, B-C-A-D....) can make future word searches very difficult, if not impossible. Do not use any conjunctions, abbreviations or prepositions in {Keywords}, except for organizations or similar named entities (e.g., Partners in Flight). For example, do not use "pine forest ecology and conservation" but do use "forest ecology; forest conservation; pine forest" in same list of Keywords. Avoid the use of plural forms of keywords; "extra pair copulations" is OK, but "mates selection" is not. Avoid use of capitals except for acronyms, which must always be spelled out somewhere in the entry. PLEASE: Do list specific diseases, pollutants, and similar subject matter.
18. Use metric measurements in all {Abstracts}.
19. Cite the URL for a paper that is available online in its complete form in the {Address} field along with other address information.

SUBJECT INDEX CODES

This list of subject codes, slightly revised from the 1998, 2003 and the 2004 versions, replaces any such list that you may have. The latest revisions more carefully explain some areas or subtopics. Insert each code in the {Keywords} field separated by semicolons. Comments and suggestions for improving the list are welcome.

1. In every category, papers should be coded under all the applicable subtopics. Avoid using any code ending in "00" whenever possible.
2. Subjects in italics after some subheadings suggest a partial list of the subtopics included and are not intended to be a complete or inclusive list.

B010 NEW JOURNAL of interest to ornithologists
 B030 RENAMED or RENUMBERED JOURNAL of interest to ornithologists
 B050 DISCONTINUED JOURNAL of interest to ornithologists
 B070 CORRECTION to published paper of interest to ornithologists (original paper should be in OWL)

B100 AVIAN BIOLOGY and LIFE HISTORY STUDIES

[This section is for papers that deal with more broad aspects of a species' biology that do not fit into one of the more discrete categories listed elsewhere, e.g., breeding and feeding habits. Example: *Birds of North America* species' **life history** accounts. The geographic subdivision is for the area of the study and is to aid the classification and retrieval of papers on particular species. Note that for wider studies, list all the finer geographic areas that are applicable. When possible, list the major subtopics codes included within the paper up to ~15.

- B102 General or Worldwide
- B104 Africa, sub-Saharan and Madagascar
- B106 Antarctica and sub-Antarctica
- B108 Australia, New Guinea, New Zealand
- B110 Europe and Iceland, incl. west half of Russia (W. of Urals)
- B112 Mexico, Central America, and Caribbean
- B116 North Africa and Middle East (Turkey & Georgia to Uzbekistan, Kyrgyzstan & Tajikistan, southward)
- B118 North America and Greenland
- B120 Northern and Far East Asia, incl. Kazakhstan, Tibet, Japan, Taiwan, & E. half of Russia (E. of Urals)
- B124 Oceanic islands, not incl. elsewhere (*e.g.*, Azores, Galapagos, Seychelles, Falklands) & oceans of the world >200 NM [370 km] from a major land mass.
- B126 Old World or Palearctic, incl. all of Russia (used for old OWL records; now use B104, B110, B116, B120, and B128)
- B128 Oriental (India, Pakistan, SE Asia, Indonesia, Philippines)
- B130 South America

B300 BEHAVIOR and COMMUNICATION

- B302 Agonistic, aggressive, & defensive behavior; mobbing; mate or nest guarding
- B304 Learning and intelligence; recognition; tool use
- B306 Locomotion: *Flight, swimming and diving, walking, climbing*
- B308 Self-maintenance: *Daily time budget, preening, head scratching, bathing, anting, roosting, sleeping, perching*
- B310 Sensory perception: *auditory, magnetic, olfactory, tactile and visual sensing*
- B312 Sexual behavior: *Courtship displays, pair bonding, copulation, leks* (see B714)
- B314 Social: *Colonial, social structure, flock behavior, intraspecific interaction* (for interspecific, see C922)
- B316 Territorial behavior and home range; sizes and distribution
- B318 Visual signals, not specifically for sexual behavior
- B320 Vocalizations and other sounds

B500 BIRDS and HUMANS

- B502 Collisions, electrocutions, entanglement, and other man-induced injury or fatality; incl. remedial measures to prevent future losses (not incl. in E520; does not include trapping for ringing or banding [E526].)

- B504 Effects (pos. or neg.) upon livestock, crops, fisheries, or similar enterprises (see E520)
- B508 Gamebird management, hunting
- B509 Introduced avian species for largely non-game purposes (see B908 for non-avian sp. introductions)
- B510 Uses of birds by humans, incl. archeology, folk lore, mythology (for hunting see B508; for trade see B914)

B700 BREEDING HABITS

- B702 Breeding schedule and dates (phenology); attempts/season; breeding age (see also C918)
- B704 Brood parasitism, egg dumping, and foster parenting & adoptions
- B706 Cooperative, colonial or communal breeding; helpers
- B708 Effects of human studies or presence on nesting (see also E515)
- B710 Eggs, incubation, hatching, egg physiology and morphology; clutch size (see C918)
- B714 Mating systems, mate selection, extra-pair mating, & paternity; sex ratio (see B312)
- B716 Nesting substrate, site and structure, & nest building (see C908 for habitat of nest site)
- B718 Parental care and feeding of young or an incubating/brooding mate
- B720 Young, from hatching to fledging & independence; *growth and development*

B900 CONSERVATION

- B902 Captives: *maintenance, rehabilitation, and release; zoo avian collections*
- B904 Declining, endangered, or extinct native species; extinction or extirpation (see B509 for exotic avian species)
- B906 Education programs, politics, and planning; legal protective measures
- B908 Effects of man-made environmental changes and disturbances: *Fragmentation, urbanization, agriculture, forestry, fisheries, exotic plant or animal introduction; use of manmade features/structures* (see also C902)
- B910 Habitat protection and management; importance of habitats (more specific than B912)
- B912 Species protection and recovery measures, incl. but not limited to transplants, re-introductions
- B914 Wild bird trade (not incl. in B510)

C100 DISEASES, PARASITES, and PATHOLOGY

- C102 Disease (e.g., bacterial, viral, fungal) and disease transmission & prevention
- C104 Parasites: *External, internal* (e.g., protozoans, arthropods, helminths, nematodes)
- C106 Pathology and injury reports

C300 DISTRIBUTION, ZOOGEOGRAPHY and AVIFAUNAL HISTORY

[See discussion under “Distributional papers” (p. 10). See also B100-series discussion.]

- C302 General or Worldwide
- C304 Africa, sub-Saharan and Madagascar
- C306 Antarctica and sub-Antarctica
- C308 Australia, New Guinea, New Zealand
- C310 Europe and Iceland, incl. west half of Russia (W. of Urals)
- C312 Mexico, Central America, and Caribbean
- C316 North Africa and Middle East (Turkey & Georgia to Uzbekistan, Kyrgyzstan & Tajikistan, southward)
- C318 North America and Greenland
- C320 Northern and Far East Asia, incl. Kazakhstan, Tibet, Japan, Taiwan, & E. half of Russia (E. of Urals)
- C324 Oceanic islands, not incl. elsewhere (e.g., Azores, Galapagos, Seychelles, Falklands) & oceans of the world >200 NM [370 km] from a major land mass.
- C326 Old World or Palearctic, incl. all of Russia (used for old OWL records; now use C304, C310, C316, C320, and C328)
- C328 Oriental (India, Pakistan, SE Asia, Indonesia, Philippines)
- C330 South America

C700 DOCUMENTATION

- C702 Bibliographies and databases, libraries; literature reviews or indexes
- C704 Biographies, obituaries, bird observatories and organizations, and history
- C706 Collecting and collections, specimens; record keeping
- C708 Ornithological terminology, definitions

C900 ECOLOGY, ENVIRONMENT, and POPULATIONS

- C902 Biocides and pollution
- C904 Birds as environmental monitors or indicators
- C906 Effects of climate, weather, fire, oceanic currents and tides, or celestial events (e.g., sunrise/set, eclipse)
- C908 Habitat description, structure, selection, change, or use; plant community; geology; hydrology; habitat suitability models or indexes
- C909 Impacts (recent) by birds on their environment or other species (see also D106)
- C910 Life span and survivorship rates
- C912 Mortality causes (does not incl. C916, except when in a list of all causes of mortality)
- C914 Population numbers, census, density, trends, and dynamics (see D904 for migration counts)
- C916 Predation of individual(s), eggs or young (more specific than C912; also use D302 if predator is a bird)
- C918 Reproductive effort, success and productivity; recruitment
- C920 Site fidelity and dispersal (often based upon marked individuals)
- C922 Species composition; interspecific competition (for intraspecific, see B314); biodiversity; community structure & dynamics
- C924 Trophic levels and energy cycles and related relationships in ecosystem
- C926 Winter and migration habitat (use C908 for habitat used year around by resident taxa)

D100 EVOLUTION and SYSTEMATICS

- D103 Classification and phylogeny: *relationships of avian taxa (species and higher) to other birds or animals*
- D105 Evolutionary theories & hypotheses; patterns, rates, fitness, and processes: species or higher categories
- D106 Co-evolution between an avian and another animal or plant species (see also C909)
- D108 Intraspecific variation of any character, behavior, or other feature; intergrading of subspecies
- D110 New avian taxa (see C104 for new parasite taxa)
- D112 Species concepts
- D114 Taxonomy and nomenclature; etymology; types; vernacular & colloquial names for birds

D300 FOOD HABITS and NUTRITION

- D302 Diet, what birds eat; food selection; nutrition; prey abundance (also see C916 if prey is avian)
- D304 Drinking, pellet-casting, and defecation
- D306 Foraging habits; food transport and storage (for caching, see also B304)
- D308 Kleptoparasitism

D500 GENETICS and HYBRIDIZATION

- D502 Behavioral and population genetics; phenotypes; gene flow
- D504 Genetic polymorphism, cytogenetics and molecular genetics
- D508 Hybrids and progeny (see B714 for mate choice)

D700 IDENTIFICATION: Techniques and information

- D702 Species and subspecies identification or separation (includes D704)
- D704 Sex or age class identification or separation

D900 MIGRATION and NAVIGATION

- D902 Migratory behavior: *how or why individuals prepare, start or stop migration; how they soar, fly or swim on migration; speed; time of day or night of migration*
- D904 Migratory dates, timing, phenology, counts, and routes; distribution of recovered marked birds
- D906 Migratory physiology: *lipid accumulation rates and amounts* (see also E118)
- D908 Navigation and homing: *cues, proximal, distant; imprinting*

E100 MORPHOLOGY and PHYSIOLOGY (descriptive and functional anatomy)

- E101 Abnormal external appearance: *plumage, soft body parts*
- E102 Circulatory and lymphatic systems: *vessels, blood, blood chemistry*
- E104 Digestive system
- E106 Embryology and development of embryo (*see* B710 and B720)
- E108 Endocrine system and hormones
- E110 Excretory system and water metabolism: *Urinary structures, nasal glands*
- E112 Immune system
- E114 Integument: *Feathers, molts, plumages, other integumentary structures, skin; bill structure*
- E116 General morphology: *Body size and mass, regional morphology, sexual dimorphism*
- E118 Physiology and biochemistry: *Body composition, day length effects, energy metabolism and body temperature, lipid physiology & storage, protein physiology*
- E120 Reproductive system and physiology (*see* B710)
- E122 Respiratory system
- E124 Sensory and nervous system
- E126 Skeletomuscular system

E300 PALEORNITHOLOGY (oldest to youngest)

- E302 Triassic, Jurassic, Cretaceous (lower, middle and upper Mesozoic) or earlier fossils
- E304 Paleocene, Eocene and Oligocene fossils (early or lower Tertiary)
- E306 Miocene and Pliocene fossils (late or upper Tertiary, i.e., Neogene)
- E308 Pleistocene and Holocene fossils and subfossils, Quaternary (*see* B510 for archeology)
- E310 Site surveys

E500 TECHNIQUES

- E501 Binoculars, telescopes, night vision and other non-photographic optical equipment
- E502 Biochemical or biophysical assay
- E504 Captive studies; also breeding, care, rehabilitation, and release
- E506 Censuses, maps, and surveys
- E508 Environmental monitoring, incl. remote sensing, GIS and related methods
- E509 Feeding habits and diet analysis
- E510 Field and laboratory study methods NOT incl. elsewhere under E500-series
- E512 Genetic studies
- E514 Mathematical models: population, growth and other statistics
- E515 Nesting studies, incl. nest boxes& other structures designed for birds; manipulations of nest, clutch, brood or nestling food
- E516 Photographic, imaging or video documentation, incl. radiographic, scanning electron microscopy, computer imaging, fibre optics
- E518 Physiological methods
- E520 Predator and nuisance control or protection therefrom
- E522 Sound recording, playback, analysis
- E524 Tracking and remote monitoring, radio-telemetry, radar
- E526 Trapping, netting, marking, and taking field measurements & record keeping

Q999 OTHER AVIAN TAXA IN PAPER—NOT LISTED IN OWL RECORD

Used to indicate that the paper covers a number of species that are not listed individually OR that the citation came to OWL with no details as to the actual taxa involved; some taxa may be listed in the OWL record but not all. Whenever possible the actual country, Province or State must be specifically indicated in the OWL record. This code is most likely to be used for area surveys or censuses, species diversity, records committee reports, and avifaunal lists but may also include lists of avian hosts or prey or other similar long lists. OWL abstractors should try to list up to about 15 taxa per record whenever feasible: those that are the most notable based upon abundance, rarity, new distributional record, or similar factors.

ADDRESS ABBREVIATIONS
(NOT for use in Abstracts or as Keywords)

<u>For</u>	<u>Use</u>		
Abteilung	Abt.	Council	Counc.
Academy	Acad.	County	Co.
Administration	Admin.	Court	Ct.
Agriculture, -al	Agric.	Crescent	Cres.
Akademijos	Akad.	Cultural	Cult.
American	Am.	Current	Curr.
Anatomy	Anat.	Department	Dept.
Animal	Anim.	Departamento	Depto.
Antarctic	Antarct.	Development	Dev.
Anthropology	Anthropol.	Dipartimento	Dipto.
Apartado	Apdo.	District	Dist.
Apartment	Apt.	Division	Div.
Aplicado	Apl.	Drive	Dr.
Applied	Appl.	East	E.
Aquaculture	Aquacult.	Eastern	East.
Association, -iates	Assoc.	Ecology, -ical, -ie	Ecol.
Avenida	Avda.	Economic	Econ.
Avenue	Ave.	Education	Educ.
Aviculture	Avic.	Endocrinology	Endocrinol.
Behavior/iour	Behav.	Entomology	Entomol.
Biogeography, -ical	Biogeogr.	Environment, -al,	Environ.
Biology, -ical, -ía, -ie	Biol.	Epidemiology	Epidemiol.
Biomedical, -ine	Biomed.	Ethology, -ical, -ie	Ethol.
Biometrical, -s	Biomet.	Evolutionary	Evol.
Boulevard	Bldv.	Experiment	Exp.
Branch	Br.	Experimental	Exp.
British	Brit.	Faculty, -ad	Fac.
Building/s	Bldg.	Fishery/ies	Fish.
Bureau	Bur.	Floor	Fl.
Canada, -ian	Can.	Forest, -ry	For.
Canyon	Cyn.	-forschung	-forsch.
Catedra	Cat.	Fort	Ft.
Center/Centre/Centro	Ctr.	Foundation	Found.
Chemistry, -ical	Chem.	für	f.
Ciencias	Cienc.	Garden/s	Grdn.
Cientificas	Cient.	General	Gen.
Ciudad	Cd.	Geography	Geogr.
College	Coll.	Geology	Geol.
Commission	Comm.	Highway	Hwy.
Committee	Com.	History	Hist.
Communications, -ciones	Communic.	Holarctic	Holarct.
Community	Commun.	Hydrobiology, -ical	Hydrobiol.
Comparative	Comp.	Immunology	Immunol.
Conference	Conf.	Incorporated	Inc.
Consejo	Cons.	Information	Info.
Conservancy, -ation, -atory	Conserv.	Institut, -e/s	Inst.
Cooperative	Coop.	International	Int.
		Investigacion/es	Invest.

Laboratory/ies, -oire	Lab.	Project	Proj.
Lane	Ln.	Protection	Prot.
Limited	Ltd.	Psychology, -cal	Psychol.
Magazine	Mag.	Rangelands	Range.
Mammalogy	Mammal.	Recherches	Rech.
Management	Manage.	Renewable	Renew.
Marine	Mar.	Research	Res.
Mathematics	Math.	Resources	Resour.
Medical, Medicine	Med.	River	R.
Memorial	Mem.	Road	Rd.
Microbial	Microb.	Room	Rm.
Microbiology, -ical	Microbiol.	Route	Rt.
Ministry	Min.	Royal/aux	Roy.
Modifiès	Mod.	rue	r.
Molecular	Mol.	Rural Free Delivery	RFD
Mount	Mt.	Rural Route	RR
Mountain	Mtn.	Saint	St.
Museo, Museum	Mus.	Sainte	Ste.
Nacional	Nac.	Sanctuary	Sanct.
National	Natl.	School	Sch.
National Wildlife Refuge	NWR	Science/s, Scientist	Sci.
Nature, -al, -alist, -elle/s	Nat.	Section	Sec.
Naturhistorische	Naturhist.	Service	Serv.
North	N.	Society	Soc.
Northeast	NE	South	S.
Northeastern	Northeast.	Southeast	SE
Northern	North.	Southeastern	Southeast.
Northwest	NW	Southern	South.
Northwestern	Northwest.	Southwest	SW
Novitates	Novit.	Southwestern	Southwest.
Number	No.	Station	Stn.
Observer, -atory	Obs.	Straat, Strasse	Str.
Ökologie	Ökol.	Street	St.
Office	Off.	Studies	Stud.
Organization	Org.	Systematics/Systèmes	Syst.
Ornithology, -ical, -ique	Ornithol.	Technische	Tech,
Ornitología	Ornitol.	Technology, -ical	Technol.
Parasitology	Parasitol.	Técnicas	Téc.
Park/s	Pk./s	Terrace	Terr.
Parkway	Pkwy.	Tierökologie	Tierökol.
Pathology, -ie	Pathol.	Toxicology	Toxicol.
Pharmazeutische	Pharm.	Tropical	Trop.
Physiology, -ical, -ie	Physiol.	und	u.
Place, Plaza	Pl.	United States	U.S.
Polytechnical	Polytech.	Universidad, -itât, -ity	Univ.
Population	Popul.	U.S. Dept. of Agriculture	USDA
Postfach	Postf.	U.S. Fish & Wildlife Service	USFWS
Post Office	P.O.	U.S. Bur. of Land Manage.	USBLM
Poultry	Poult.	U.S. Geological Survey	USGS
Private	Priv.	USGS Biol. Resource Div.	USGS/BRD
Program, -a, -me	Prog.	Veterinary, -ian	Vet.

Virology	Viol.	Zentrum, -ale	Zentr.
West	W.	Zoology, -ical, -ico, -ie,	
Western	West.	-ische	Zool.
Wildlife	Wildl.		

Do not abbreviate:

Acres	Central	Genetics	Range
Affairs	Computer	Group	Renewable
Aquatic	Falls	Health	State
Arctic	Farm	Inland	Trust
Area	Field	Internal	Unit
Board	Fish	Lower	Village
Box	Food	Pacific	Way
Campus	Fund	Point	Wood
Capital	Game	Prairie	Woods

Geographic abbreviations (for addresses only)

OWL recommends that country names be written in full (no abbreviations). The few exceptions are listed here.

Australia	Canada = Can.	Ontario = ON
New South Wales = NSW	Alberta = AB	Prince Edward Island = PE
Northern Territory = NT	British Columbia = BC	Quebec = PQ
Queensland = Qld.	Manitoba = MB	Saskatchewan = SK
South Australia = SA	New Brunswick = NB	Yukon Territory = YT
Tasmania = Tas.	Newfoundland = NF	
Victoria = Vic.	Northwest Terr. = NT	New Zealand = NZ
Western Australia = WA	Nova Scotia = NS	United Kingdom = UK
	Nunavut = NU	
United States of America = USA		
Alabama = AL	Kentucky = KY	Ohio = OH
Alaska = AK	Louisiana = LA	Oklahoma = OK
Arizona = AZ	Maine = ME	Oregon = OR
Arkansas = AR	Maryland = MD	Pennsylvania = PA
California = CA	Massachusetts = MA	Puerto Rico = PR
Colorado = CO	Michigan = MI	Rhode Island = RI
Connecticut = CT	Minnesota = MN	South Carolina = SC
Delaware = DE	Mississippi = MS	South Dakota = SD
District of Columbia = DC	Missouri = MO	Tennessee = TN
Florida = FL	Montana = MT	Texas = TX
Georgia = GA	Nebraska = NE	Utah = UT
Guam = GU	New Hampshire = NH	Vermont = VT
Hawaii = HI	New Jersey = NJ	Virginia = VA
Idaho = ID	New Mexico = NM	Virgin Islands = VI
Illinois = IL	New York = NY	Washington = WA
Indiana = IN	Nevada = NV	West Virginia = WV
Iowa = IA	North Carolina = NC	Wisconsin = WI
Kansas = KS	North Dakota = ND	Wyoming = WY

Use abbreviations in context:

N. River Rd. *but* Platte R. Res. Stn.
Southwest. Res. Stn. *but* 1212 SW River Way;
Pacific SW For. Range Exp. Stn.
1212 N. State St. *but* Michigan State Univ.;
St. Cloud State Univ.

Drop connecting words:

Peabody Mus. Nat. Hist. *not* Peabody Mus. of Nat. Hist.
Dept. Fish. Wildl. *not* Dept. of Fish. and Wildl.
Abteilung für Biol. = Abteil. f. Biol.

Ending of words is -ology and -ological:

Hydrobiology = Hydrobiol.
Hydrological = Hydrol.
Mammalogy = Mammal., etc.

ACKNOWLEDGMENTS

This version of the guidelines is based on a draft prepared by Jay Sheppard and reviewed by Ken Able, the Web Master, and Regional Coordinators and Editors. The list of address abbreviations is based on a list initially prepared by Owen L. Schmidt. Corrections or suggestions for future improvement to these guidelines are most welcome and should be sent to any member of the OWL Staff.

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Other Regional Coordinators may be found in the future for dividing the Palearctic and Neotropical regions into smaller, more manageable areas.

APPENDIX I.—Abstractor's Responsibilities

We appreciate all the dedication and hard work that all the abstractors provide to this undertaking. Several abstractors have been doing this work for more than 15 years. Others have just started in recent months. Since we are all unpaid volunteers, we need to work together to reduce the work load of everyone as much as possible. Your time and that of others is very important. The following are simple common courtesies.

1. Please keep your Regional Coordinator advised of any address changes. We appreciate that many OWL volunteers are moving from school to school or job to job or retirement, etc. We do want to keep in contact with you and vice versa. Email is the preferred mode of communication.
2. Please advise your Regional Coordinator of any expected long-term delays in submitting material. If you are going to be unable to provide material for about 6–9 months or more, please let us know. This is especially important if the journals you are reviewing are major ornithological serials. OWL needs to be kept current with the literature.
3. If you are unable to continue to abstract one or more of the serials you are assigned, please notify your Regional Coordinator as soon as possible. We would like to have your last material submitted and any suggestions, if any, for who might be a possible successor to your coverage. We are always looking for new abstractors for OWL.
4. Should you be interested in abstracting another journal or other serial, please ask your Regional Coordinator if that serial is already being abstracted by someone else. Also, if you learn of a paper in some obscure serial, you may submit it but flag it for your Regional Coordinator to verify if anyone else might be covering that serial already. We want to avoid duplication of effort.
5. Try to respond to any inquiry re data as soon as feasible. We all take extended trips or are otherwise unavailable to immediately respond. Everyone has other commitments. If you are going to be unable to respond for a week or three, please advise the requestor that you did receive his inquiry and will try to get to it at some point in the next few weeks or at some reasonably specific later time.
6. If you send data files or an inquiry to a Regional coordinator or an editor and do not receive any acknowledgment of its receipt within several weeks, send a second email asking if the first was actually received. Do not resubmit any data unless specifically requested to do so.

APPENDIX II.—Coordinators' and Editors' Responsibilities to Abstractors

1. Coordinators and editors will acknowledge the **receipt** of data files and other inquiries from abstractors as soon as practical. Answers to inquiries may come later, but an acknowledgment should come within several work days, provided the recipient is not on holiday or travel. Likewise, the review of data will almost certainly take place later. For data files, the recipient will immediately open the file to ensure that it is readable by the appropriate software or request another copy be sent.
2. Coordinators and editors will advise the appropriate abstractor of any significant changes the former has made to the latter's data. With these new OWL guidelines, we are all in a learning phase. We want to reduce the problems with data entry to a minimum.
3. Coordinators do not perform any technical edits of incoming data; they do review the files for completeness before sending the data to the Managing Editor.