BYLAWS OF THE COOPER ORNITHOLOGICAL SOCIETY

I. MEMBERSHIP

- (1) Requirements. Any person interested in ornithology may become a member of the Cooper Ornithological Society (hereafter the "Society") upon payment of dues, except that an application for membership may be rejected, or a member expelled, for good cause by vote of the Board of Directors of the Society (hereafter the "Board"). No member may transfer membership, or any right arising therefrom to another person. All rights of a member in the Society shall cease upon death or other termination of membership. Any member who becomes delinquent in the payment of dues loses all rights and privileges of membership until such time as the dues may be paid in full.
- (2) Classes and dues. The classes of membership and dues, plus subscription rates for The Condor, shall be as determined from time to time by resolution of the Board. Application for membership shall be in writing addressed to the Cooper Ornithological Society and stating the full name and mailing address of the applicant. The application shall be delivered to the Society's Treasurer or designated representative, accompanied by the annual dues for the calendar year for which such application is filed. Members may change their class of membership at the time of remittance of dues. Life membership, as previously defined in the Bylaws (The Condor 69:613-620), is continued if the life membership was paid for prior to adoption of the amendment of 1974, eliminating this class of membership.
- (3) Rights. All members not in arrears for dues shall be entitled to receive *The Condor* and be entitled to all benefits accruing to their particular class of membership in the Society. Each member shall be entitled to one vote in elections or other matters brought before the membership.
- (4) Honorary membership. Honorary membership may be conferred, by majority vote of the Directors present at any Board meeting, on members of the Society who have rendered outstanding service to the Society and ornithology. Honorary members shall receive a certificate of a form determined by the Board and signed by the President, shall be exempt from all dues, and shall be entitled to all the rights and privileges of duespaying members. Nominations for honorary membership may come from a duly appoint-

ed Nominating Committee (see V (5) (f)), but the Board shall not be limited, in its power to elect honorary members, to candidates submitted by such committee.

II. CHAPTERS

- (1) Recognition. For the purpose of holding ornithological meetings, local chapters of the Society may be formed. Such chapters shall be recognized, if approved by the Board, upon application of 25 or more persons. Each chapter existing in good standing at the time of adoption of these Bylaws shall be recognized by the Society. Recognition of any chapter may be revoked by the Board when, in its judgment, the best interests of the Society would be served.
- (2) Responsibilities. Upon request, chapters must supply the Board with lists of their members. The Society shall not be held legally responsible for any actions taken by a chapter.
- (3) Rules and regulations. Each chapter shall adopt such rules and regulations for the conduct of its own affairs as may be desired, provided that they do not conflict with the Bylaws of the Society or with rules adopted by the Board. Each chapter by agreement among its members may fix such charges upon its members as may be required for conducting the affairs of the chapter. The geographic area represented by each chapter shall be that which best serves the needs of its members and may be determined by their majority vote, subject to approval by the Board.
- (4) *Membership*. The officers, but not the other members, of chapters must be members of the Society. Membership in any chapter shall be open to any member of the Society who shall signify a desire to join and who shall pay the dues required by such chapter for its expenses and activities. No member of the Society shall be required to join a chapter or forfeit any rights and privileges of membership in the Society by declining to join a chapter.
- (5) Officers. Each chapter shall have a President and a Secretary, who shall fulfill the duties of such offices, and such other officers as the chapter may determine. To remain recognized, all chapters must hold annual elections of officers by their membership.

III. BOARD OF DIRECTORS

- (1) Composition and qualifications. The Board of Directors shall consist of nine persons, hereafter termed the "Directors," elected by the Society membership (except as provided in III (8)). The Directors shall be divided into three classes, serve staggered terms, and each have one vote. Nonvoting, ex officio members shall include all incumbent officers of the Society (but not of chapters) who are not elected Directors, the two incumbent chief Editors, the most recent Past-President of the Board, and all chairpersons of standing, but not ad hoc, committees listed in these Bylaws or subsequently established by the Board. Only members of the Society in good standing may become Directors or ex officio members of the Board.
- (2) Nomination. At the first session of the regular Board meeting (defined in III (6) (a)), a Nominating Committee for Directors, selected by the President, shall be approved by the Board. At the Regular Business Meeting of Society members (hereafter the "Regular Business Meeting"; see VIII (2)), the President shall announce the members of the Nominating Committee and the procedure for nomination by petition. Not later than 60 days from the end of said Regular Business Meeting, the Nominating Committee shall select one or two candidates per vacancy to be filled at the next succeeding Regular Business Meeting. Candidates may also be nominated by a petition signed by no fewer than 50 members in good standing and received by the Secretary not later than 60 days from the end of that year's Regular Business Meeting. The names of all nominees shall be published in The Condor, preferably prior to mailing of the ballots for the election thereof.
- (3) Election. Directors, other than those elected by the Board to fill interim vacancies, shall be elected by a mail ballot sent to all eligible Society members. The ballot shall state the number of vacancies to be filled, provide spaces for write-in candidates, and contain the names of all nominees, stating which were nominated by the Board Nominating Committee and which by petition of the members. The Secretary shall mail ballots to the members at least 45 days prior to the start of the Regular Business Meeting at which the Directors are to be elected. Members may vote for no more candidates than the number of vacancies to be filled, and any ballot showing votes for more candidates shall not be counted. If a

- member spoils a ballot, it may be returned to the Secretary, and a duplicate will be provided if time permits. To be valid, a ballot must be returned to the Secretary, signed and dated by the member casting it, and received by the Secretary not later than 15 days prior to the start of the Regular Business Meeting. At each Regular Business Meeting, the number of persons receiving the largest number of votes shall be deemed elected.
- (4) Term. Each Director shall take office when officially qualified during the second session of the regular Board meeting immediately following the Regular Business Meeting at which elected and shall hold office for a three-year term. Directors shall not be eligible to succeed themselves or fill a vacancy on the Board until at least one year has passed since the completion of their previous term. Each Director holding office at the time of adoption of these Bylaws shall complete the term for which originally elected.
- (5) *Powers*. The Board shall have the power and authority to:
- (a) Levy and collect assessments upon all members of the Society.
- (b) Call meetings of the membership of the Society when it deems the same necessary.
- (c) Adopt, by resolution, rules and regulations not inconsistent with the laws of the State of California or with the Bylaws of the Society for the guidance of the Officers in the management of the affairs of the Society.
- (d) Conduct, manage, and control the affairs and business of the Society.
- (e) Contract for, incur, or create indebtedness in any lawful manner and in any amount required for the purposes of the Society; secure the same by deed of trust or mortgage upon the real property of the Society in the manner provided by law; make, do, or perform any acts necessary or proper to carry out all or any of the purposes of the Society; make and enter into contracts, perform and enforce the same, and issue bonds, debentures, and other evidence of indebtedness to secure obligations of the Society in the manner provided by law.
- (f) Keep an accurate record of all its meetings and acts and also of all meetings of the Society.
- (g) Supervise all acts of the Officers and employees and cause the moneys of the Society to be kept safely, directing where the same shall be kept or deposited.

- (h) Invest surplus funds of the Society or funds in the Endowment Fund in stocks and other securities.
- (i) Choose editors for *The Condor*, *Studies in Avian Biology*, and any other publications of the Society, review editorial policy, and approve the financing and issuing of publications.
- (j) Determine the scientific and educational policies and undertakings of the Society.
- (k) Act on matters concerning conservation, with or without resolution by the Society membership (see V (5) (b)).

(6) Meetings.

- (a) Regular meetings. The Board shall hold a regular meeting during each Annual Meeting of the Society. Said Board meeting shall be divided into two sessions. The first session shall immediately precede, and the second session immediately follow, the Regular Business Meeting of Society members. The second session shall include seating of the newly elected Directors and reorganization of the Board.
- (b) Special meetings. Special meetings of the Board for any purpose or purposes may be called at any time and place by the President, the Vice-President, or any three Directors. Such a meeting shall be held upon at least seven days' notice by first class mail or at least 48 hours notice given personally or by telephone, telegraph, telex, or other similar means of communication. Notice by mail shall be deemed to have been given at the time a written notice is deposited in the United States mails, postage prepaid. Any other written notice shall be deemed to have been given at the time it is personally delivered to the recipient, delivered to a common carrier for transmission, or transmitted to the recipient by the person giving the notice by electronic means. Oral notice shall be deemed to have been given at the time it is communicated, in person or by telephone or wireless, to the recipient or to a person at the office or residence of the recipient who the person giving the notice has reason to believe will promptly communicate it to the recipient.
- (c) Action without a meeting. Any action required or permitted to be taken by the Board may be taken without a meeting if all members of the Board shall consent in writing to such action.
- (7) Quorum. A majority of the authorized number of Directors constitutes a quorum for the transaction of business at any Board meeting.

- (8) Vacancies. Vacancies on the Board may be filled by a majority vote of the remaining Directors, although less than a quorum, or by the sole remaining Director, and each Director so elected shall hold office until the expiration of the term of the replaced Director or until such replacement Director's successor has been elected and qualified.
- (9) Compensation. All Directors and Officers shall serve without compensation, except that the Board may, if it deems it advisable, provide compensation for the following Officers: Secretary, Assistant Secretary, Treasurer, Assistant Treasurer, or chief Editors. Funds for hiring additional assistance shall come from the compensation provided by the Board to the respective Officer. At the discretion of the Treasurer, subject to approval by the Board, the Directors and Officers may be reimbursed for expenses reasonably incurred by them in the performance of their duties.

IV. OFFICERS

- (1) Offices and qualifications. The Officers of the Board and Society shall be a President, Vice-President, Secretary, Assistant Secretary, Treasurer, Assistant Treasurer, and such other Officers as the Board may from time to time elect. A person may hold only one of these six offices at a time. No Officer need be chosen from among the Directors, but Directors shall be eligible for such offices. All Officers who are not Directors, including the President, shall be nonvoting, ex officio members of the Board.
- (2) *Nomination*. Nominations for all offices shall come only from those qualified Directors present in person at the second session of the regular Board meeting.
- (3) Election. Officers shall be elected by the Board during the second session of the regular Board meeting. At that session, the President shall dissolve the old Board and appoint one of the existing Directors to preside over the meeting. Said Director shall seat the new Board, including the newly elected Directors, and immediately call for the selection of the new President, who, upon election, shall take office and then conduct the election of the remaining Officers and chief Editors. The person receiving the highest number of votes for each office shall be elected.
- (4) Term. Each Officer shall take office immediately upon election and shall serve a

one-year term or until a successor is elected and qualified. Officers may serve successive terms.

- (5) Powers and duties.
- (a) President. The President shall be the chief executive of the Society and the President of the Board. The President shall preside at all meetings of the Board and of the Society, direct and administer all affairs of the Society, subject to the direction of the Board, and perform such other duties as specified by the Board or these Bylaws. The most recent Past-President, if not at that time a Director, shall remain as a non-voting, ex officio member of the Board throughout the term of the succeeding President. The President shall be responsible for soliciting invitations for future Annual Meetings.
- (b) Vice-President. The Vice-President shall perform such duties as prescribed by these Bylaws; upon request, assist in carrying out the duties of the President; and in the absence of the President, perform the duties of said office.
- (c) Secretary. The Secretary shall keep a record of the meetings of the Board and of the Society and shall discharge such other duties as pertain to the office or are prescribed by the Board or these Bylaws.
- (d) Assistant Secretary. The Assistant Secretary shall assist the Secretary, and in the absence of the Secretary shall perform all duties of said office.
- (e) *Treasurer*. The Treasurer shall safely keep all moneys belonging to the Society and disburse the same by checks countersigned by such other Officers as shall be designated by the Board. If the Treasurer is unable to serve, such checks shall be signed by the Officer designated by the Board. The Treasurer shall receive, or cause to receive, donations, all dues from members, subscriptions to Society publications, and payments for properties of the Society as may be authorized for sale by the Board, issue receipts for same when requested, and discharge such other duties as normally pertain to this office or as may be prescribed by the Board or these Bylaws.
- (f) Assistant Treasurer. The Assistant Treasurer shall assist the Treasurer, and in the absence of the Treasurer, shall perform all duties of said office.
- (6) Vacancies. Any unexpected vacancy in any office shall be filled by vote of the Board. An Officer so elected shall hold office until the expiration of the term of the replaced Officer or until such replacement

Officer's successor has been elected and qualified.

(7) Compensation. See III (9).

V. COMMITTEES OF THE BOARD

- (1) Establishment. To assist in carrying out its duties, the Board shall have standing and ad hoc committees, including those herein specified, as well as any others that may be established. Standing committees shall be established by vote of the Board, and ad hoc committees, by action of the President.
- (2) Powers and duties. The powers and duties of each committee shall be as prescribed by the Board and these Bylaws. Each committee may adopt procedures for its own management not inconsistent with these Bylaws or with rules adopted by the Board. Committee actions shall be subject to approval by the Board. The chairperson of each committee shall give to the President, Vice-President, and Secretary of the Board the names and addresses of all regular and ex officio members of that committee. The chairperson of each standing, but not ad hoc, committee shall become a nonvoting, ex officio member of the Board during tenure as chairperson. Each standing committee shall report to the Board at the Annual Meeting and when otherwise reguested to do so. At the request of the committee chairperson, the President may waive a report.
- (3) Number of members. The number of regular members for each committee shall be as specified below or as from time to time determined by vote of the Board, except that the number specified by these Bylaws may not be reduced below one (the chairperson) nor may any reduction be made if there is important business pending on which that committee should act. Each committee may also have as many ex officio members as needed to conduct its business.
- (4) Appointment and term of office. The chairpersons of the Conservation-Resolutions, Harry R. Painton Award, and Paper Awards committees shall be appointed by the Vice-President. The chairpersons of all other committees shall be appointed by the President. Any member of a committee may be removed by the Board whenever, in its judgment, the best interests of the Society would be served. Except as otherwise restricted in these Bylaws, the following obtain: the chairperson of each committee may be chosen from the membership-at-large and shall appoint the other regular, as well

as ex officio, members of that committee; each committee member shall serve from the time of appointment until the end of the ensuing regular Board meeting or until a successor is appointed, and may serve any number of consecutive terms.

- (5) Standing committees. The standing committees shall include:
- (a) *Bylaws*. This committee shall periodically review the Bylaws and, if desired by the committee or Board, present to the Board recommendations for amendments. The chairperson shall be a Director. This committee shall have three regular members.
- (b) Conservation-Resolutions. This committee shall assist and inform the Board in matters of conservation, draft resolutions concerning the Annual Meeting and conservation, and disseminate approved resolutions to the appropriate parties. Resolutions shall be approved by either the Board or the Society membership. Board approval shall be by majority assent if at a Board meeting, or by unanimous written assent if taken without a meeting. The members of this committee shall be announced at the first session of the Regular Business Meeting, and all resolutions shall be read to the Society members at the second session of such meeting. This committee shall have three regular members.
- (c) Finance. This committee shall handle investments, have drafted and supervise the annual operating budget, advise on and manage programs to procure funds, and supervise the other financial matters of the Society and the Treasurer's Office, all subject to approval by the Board. With the approval of the Board at the second session of the regular Board meeting, the President shall appoint the chairpersons and other regular members of the Finance Committee, Investment Subcommittee, and Fundraising Subcommittee. The Treasurer shall not be the chairperson of this committee or its subcommittees. Members shall serve no more than five years consecutively but may be reappointed after a one-year absence. The Finance Committee shall have seven regular members, including the Treasurer, at least two concerned with investment, and at least two with fund-raising.
- (d) *History*. This committee shall solicit archival materials that concern the Society and supervise their deposition at the Bancroft Library, University of California, Berkeley, which serves as archivist for the

- Society; and, as directed by the Board, coordinate the publication of histories of the Society. This committee shall have three regular members.
- (e) *Membership*. This committee shall solicit new Society members, maintain records of chapters, and advise the Board on classes of membership and on other pertinent matters. This committee shall have three regular members.
- (f) Nominating for honorary membership. This committee shall recommend to the Board candidates for election to honorary membership in the Society (see I (4)). No member shall serve consecutive terms. This committee shall have three regular members.
- (g) Harry R. Painton Award. This committee shall recommend to the Board, for its approval, the recipient of the Harry R. Painton Award. This award is a cash prize of \$500 and is given only in odd-numbered years to the author of an outstanding paper published in the four preceding years in The Condor. At the discretion of the committee, but with the approval of the Board, no award need be given. Funds for the award come from a legacy of Mr. Painton. By vote of the Board, Society funds may be used to increase the amount of this award. Committee members shall serve two-year terms beginning in odd-numbered years, and shall not serve consecutive terms. This committee shall have three regular mem-
- (h) Publications. This committee shall assist and advise the Editors and Board on Society publications, including content, design, production, dissemination, and storage. The chief Editors of The Condor and Studies in Avian Biology shall be regular members of, but shall not chair, this committee. The chairperson shall be a Director. This committee shall have five regular members.
- (6) Ad hoc committees. The ad hoc committees shall include:
- (a) Annual Meeting. This committee, which shall plan and arrange for the Annual Meeting, shall have two subcommittees, a Local Subcommittee and a Scientific Program Subcommittee, each with a chairperson appointed by the President. The chairperson of the Local Subcommittee shall chair the Annual Meeting Committee. The Annual Meeting Committee shall have three regular members: the chairpersons of the two subcommittees, plus the President.

The chairperson of each subcommittee may appoint additional ex officio members to that subcommittee.

- (b) *Ballot proxy*. This committee shall count the ballots for Directors, proxies, and votes on Bylaw amendments. The Secretary shall be a regular member of this committee. The chairperson shall not be a Director or Officer. At the Regular Business Meeting, the President shall announce the members of this committee, and a member of the committee shall announce the results of the counts. This committee shall have three regular members.
- (c) Nominating for Directors. This committee shall nominate individuals to fill normal vacancies on the Board. The President shall select all members of this committee with the approval of the Board at the first session of the regular Board meeting. The chairperson shall be a Director. No person shall serve consecutive terms. The President may not be a regular or ex officio member. This committee shall have three regular members.
- (d) *Paper awards*. This committee shall evaluate the eligible papers presented during the Annual Meeting and select the recipients of the following awards. By vote of the Board, Society funds may be used to increase the amount of each award. Cash prizes for papers authored by two or more eligible authors shall be divided equally among the recipients. No person shall serve consecutive terms as chairperson of this committee. This committee shall have five regular members.

The A. Brazier Howell Award, an annual cash prize of \$150 from funds donated by Mr. Howell, shall be given for the best paper presented at the Annual Meeting by a person who does not have a doctoral degree in biology. The recipient must be a member of the Society.

The Francis F. Roberts Award, an annual cash prize of \$100 from funds donated by Mrs. Roberts, shall be given for an outstanding paper presented at the Annual Meeting by a person who does not hold a doctoral degree in biology and does not win the A. Brazier Howell Award.

Two Board of Directors Student Paper Awards, each consisting of a cash prize of \$50, shall be given annually by the Board to those students who present worthy papers at the Annual Meeting and who do not win either the A. Brazier Howell or Francis F. Roberts awards.

VI. PUBLICATIONS AND EDITORS

- (1) Publications. The official organ of the Society shall be the journal called "The Condor." Proceedings of each meeting of Society members (but not of chapters), including the Annual Meeting, shall be reported in *The Condor*. The Society shall also publish a series known as "Studies in Avian Biology" to contain papers issued at irregular intervals as manuscripts and finances permit; this series is the successor to that formerly known as "Pacific Coast Avifauna." The Society may publish such miscellaneous reports, proceedings, memoirs, and other works on ornithology, in addition to The Condor and Studies in Avian Biology, as may be authorized by the Board.
- (2) Editors. The chief Editor of The Condor and the chief Editor of Studies in Avian Biology shall perform or cause to be performed such duties with reference to the publications of the Society as usually devolve upon an editorial office. The election of chief Editors shall take place at the second session of the regular Board meeting. Each chief Editor shall be elected by the Board for a three-year term, shall take office immediately upon election, and may be reelected. Without the approval of the Board, each chief Editor may appoint Associate Editors for a term not to exceed the term of that chief Editor, and using the compensation provided by the Board to each chief Editor, may hire editorial assistance in connection with producing the Society's publications. The two chief Editors shall be non-voting, ex officio members of the Board, but the Associate Editors and Editorial Assistants shall not be.

VII. COUNCIL

The governing body known as the "Council" and previously as the "Board of Governors" is hereby dissolved.

VIII. SOCIETY MEETINGS

- (1) Annual Meetings. An Annual Meeting of the Society shall be held during each calendar year for the purposes of presenting the results of scientific research and conducting business. The specific time and place shall be determined by the chairperson of the Annual Meeting Committee and approved either by the Board or by both the President and Secretary.
- (2) Regular Business Meetings. A Regular Business Meeting of Society members shall

be held during each Annual Meeting at a time and place determined by the chairperson of the Annual Meeting Committee and approved either by the Board or by both the President and Secretary.

- (3) Special Business Meetings. A Special Business Meeting of Society members may be called at any time for any reasonable purpose. Such a meeting may be called by the Board, the President, or by members holding five percent of the total voting power of the membership. Upon request in writing to the President, the Vice-President, or the Secretary by any person entitled to call a Special Business Meeting, the President shall fix the time and place for said meeting; the time shall be no fewer than 35 nor more than 90 days after receipt of the request.
- (4) Notice of meetings. Notice of each Annual Meeting, Regular Business Meeting, or Special Business Meeting shall be given in writing to each member entitled to notice thereof. Announcement of the dates and place of the Annual Meeting shall also appear in *The Condor* prior to the meeting.
- (a) Preparation. The notice of any Business Meeting shall state the place, date, and hour of the meeting and the general nature of the business to be transacted. In the case of an Annual or Regular Business Meeting, the chairperson of the Annual Meeting Committee shall prepare and transmit the notice, with the approval of the President, Secretary, and chairperson of the Scientific Program Subcommittee. In the case of a Special Business Meeting, the Officers shall prepare and transmit the notice.
- (b) *Time*. Notice of meetings shall be given no fewer than 10 nor more than 90 days before the starting date of the meeting, provided, however, that if the notice is not mailed by first class, registered, or certified mail, the notice shall be given no fewer than 20 days before the meeting. Notice by mail shall be deemed to have been given at the time the written notice is deposited in the United States mails, postage prepaid. Any other written notice shall be deemed to have been given at the time it is personally delivered to the recipient, delivered to a common carrier for transmission, or transmitted to the recipient by the person giving notice by electronic means.
- (c) *Place*. The notice shall be sent to the member's address that appears on the books of the Society or is given by the member to the Society for the purpose of giving notice, or, if no such address appears or is given, the notice shall be given at the place where

- the principal office of the Society is located, or published at least once in a newspaper of general circulation in the county in which the principal office is located.
- (5) Quorum. Twenty percent of the voting power, represented in person or by proxy, shall constitute a quorum at any Regular or Special Business Meeting. If a quorum is present, the affirmative vote of the majority of the voting power represented at the meeting, entitled to vote, and voting on any matter shall be the act of the members, unless the vote of a greater number is required by law, by the Articles, or by these Bylaws, except as provided in the following sentence. The members present at a duly called or held Business Meeting at which a quorum is present may continue to do business until adjournment, notwithstanding the withdrawal of enough members to leave less than a quorum, if any action taken (other than adjournment) is approved by at least a majority of the members required to constitute a quorum.
- (6) Adjourned Business Meetings and notice thereof. Any Business Meeting, whether or not a quorum is present, may be adjourned from time to time by the vote of a majority of the votes represented either in person or by proxy, but in the absence of a quorum (except as provided in VIII (5) of these Bylaws) no other business may be transacted at such meeting. It shall not be necessary to give any notice of the time and place of the adjourned meeting other than by announcement at the meeting at which adjournment occurs, provided, however, that when any Business Meeting is adjourned for more than 20 days, notice of the adjourned meeting shall be given as in the case of a meeting as originally called.
- (7) *Proxies*. Every member entitled to vote has a right to do so either in person or by proxy duly executed and filed with the Secretary. A proxy shall be valid for 11 months or until revoked by the person executing it. Such revocation is effected when the person delivers to the Secretary a writing stating that the proxy is revoked, or executes a subsequent proxy and presents it to the meeting, or attends the meeting and votes in person.

IX. AMENDMENTS

Bylaws may be adopted, repealed, amended, or revised by the vote of the majority of members entitled to vote by mail ballot or by the vote of a quorum at a Business Meet-

ing of Society members duly called for the purpose.

X. CORPORATE SEAL

The corporate seal of this Society, a California Corporation, shall be the impression of a disc, with the following inscription:

COOPER ORNITHOLOGICAL SOCIETY
Incorporated December 6, 1934
California

Adopted 9 May 1981 including amendment of 10 May 1981.

Condor 83:397 © The Cooper Ornithological Society 1981

RECENT PUBLICATIONS

Annual Variation of Daily Energy Expenditure by the Black-billed Magpie/A study of thermal and behavioral energetics.—John N. Mugaas and James R. King. 1981. Studies in Avian Biology No. 5, Cooper Ornithological Society. 78 p. Paper cover. \$8.00. Source: Allen Press, Inc., P.O. Box 368, Lawrence, KS 66044. The factors that mold avian life history patterns are becoming better understood through studies of how birds allocate their resources of time and energy. To date, most such studies have concerned only a part of the annual cycle (usually the breeding season) and have not distinguished between obligatory and volitional or facultative activities. The present study, in contrast, is more complete and discriminating, the better to answer ecological and behavioral questions. It is based upon a year-long investigation of a population of free-living magpies in southeastern Washington. The results have to do with the thermal environment and its influence on the biology of the magpie, and with time-activity and energy budgeting in the annual cycle. These are discussed with regard to the geographic distribution and behavior of the birds. Finally, the authors compare daily energy expenditures for several species of birds and the techniques used in estimating them. While the treatise provides a great deal of specific information, it may prove more important for its careful methodology and as a state-of-the-art model for similar studies of other species. Graphs, tables, references.

Gas Exchange in Avian Eggs.—Edited by H. Rahn and C. V. Paganelli. 1981. Department of Physiology, State University of New York at Buffalo. 358 p. Paper cover. Source: Dept. of Physiology, SUNY, Buffalo, NY 14214. One of the rapidly-growing fields in avian physiology during the past decade has been the gas exchange and physical properties of bird eggs. Rahn and Paganelli were among the pioneers and they continue to be leaders in this research. This volume is a collection of all the papers (38) originating in their laboratory and in collaboration with colleagues at other institutions, published by the end of 1980. They are reproduced here in facsimile from their original publication. The papers are grouped according to subject, i.e., physics of gas exchange, shell conductance, effects of altitude, water loss, metabolism, and egg properties and dimensions. Researchers in this field and those who want to become au courant will be grateful for having all these papers assembled. In addition, ornithologists who are interested in the evolution of eggs, breeding habits, and reproductive adaptations, will gain new insights from this material.

Casey A. Wood (1856-1942); Ophthalmologist-Bookman-Ornithologist; a Bio-bibliography.-Compiled by Effie C. Astbury. 1981. Occasional Paper 7, Graduate School of Library Science, McGill University, Montreal. 66 p. Paper cover. \$5.00. Source: Graduate School of Library Science, McGill University, 3459 McTavish St., Montreal, PQ, Canada H3A 1Y1. Casey Wood is remembered by present-day ornithologists chiefly for his monograph, The Fundus Oculi of Birds ..., and his translation of The Art of Falconry . . . of Frederick II of Hohenstaufen. Nevertheless, the latter, which appeared posthumously, was his 345th publication! The majority of his writings dealt with ophthalmology, his professional specialty. A man of varied scholarly and scientific interests, he also wrote extensively about other medical subjects, birds, his travels, history, and intersections between these fields. The range and depth of his output, not to mention the quantity, were prodigious. The present work offers a detailed chronology and a complete bibliography of Dr. Wood, a list of sources consulted, and an index. It will be useful to those who are interested in the history and literature of ornithology, or, specifically, in the avian eye.

A Bestiary for Saint Jerome/Animal Symbolism in European Religious Art.—Herbert Friedmann. 1980. Smithsonian Institution Press, Washington, DC. 378 p. \$35.00. Renaissance paintings commonly contain figures of plants, animals and various objects that carried religious or ethical meaning, seemingly hidden yet waiting to be grasped by the viewer. The nature and special logic of these symbolic animals have long received serious study from Dr. Friedmann. In this book he presents his findings and interpretations concerning the many kinds of animals that were depicted in association with Saint Jerome. He discusses the Saint, the symbolism that came to surround his story, and the two settings in which he is usually shown. Representations by six diverse Northern European and Italian artists are then examined in detail. The bestiary itself is an account of the more than sixty creatures, real or mythical, that have been found in company with Saint Jerome, including the lion, his most frequent icon. Six color plates and many monochrome reproductions show the works of art referred to. Thanks to its zoological insights, this scholarly volume makes an important contribution to art history. In addition, it reveals much about the revival of interest in natural history during the late Middle Ages. Biologists may not realize that the early, descriptive phase of their science arose from an antecedent, pictorialized attention to plants and animals. List of art works, bibliography, index.