The Condor 95:748–757

HISTORICAL PERSPECTIVES

This section is being inaugurated to commemorate the centennial of the Cooper Ornithological Society. Commencing with this issue, we will publish a series of solicited essays focusing on the history of the Society as well as that of ornithology. It is our hope that these papers will interest and enlighten readers, as well as present historical perspectives that may facilitate future endeavors in avian biology.

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HISTORY OF *THE CONDOR*

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The Condor has changed markedly in the 95 years since it commenced publication, as even the most superficial inspection will reveal (Fig. 1). Initially a small and regional periodical, it has evolved into one that is large and notably international. In the following account I describe some aspects of the journal's history, focusing on early events that directed it along its current path as well as some of the more salient changes in its contents and contributors.

CONTEXT FOR THE INCEPTION OF *THE CONDOR*

The Condor was founded by a group of biologists geographically isolated from what were then dominant centers of intellectual activity. When the journal was first published in 1899, most of the population of North America as well as its prominent centers of learning lay in the eastern or midwestern United States. On the Pacific Slope of western North America, however, a second concentration of people was small and isolated, but rapidly growing. There were but four urban areas on the western edge of the continent with greater than 100,000 people: Seattle, Portland, Los Angeles, and the San Francisco Bay area (U.S. Department of Commerce, Bureau of the Census, 1975). Of 76 million people in the United States in 1900, only 4.1 million lived in the 11 western-most states (U.S. Department of Commerce, Bureau of the Census, 1975). Most of these lived near the Pacific Coast; 36% resided in California and 23% were in Oregon and Washington. Between these populations and those east of the Great Plains, there stretched a vast, largely unpopulated area that included much wilderness and only a single city (Denver) with a population greater than 100,000. In this continental interior in 1899, the "Wild West" mining and ranching culture was rampant and the wars to suppress or exterminate native Americans were recent events. Only eight years had passed since the last large-scale massacre of native Americans by the U.S. Army had taken place at Wounded Knee Creek, in what is now South Dakota (Brown 1971). There was, of course, no electronic communication and essentially no telephone service. To transverse the continent from the Pacific Coast to the cultural centers near the Atlantic Coast required a 5,000 km, five-day train trip (Adams 1969).

In addition to their geographic isolation, ornithologists in the West also were importantly influenced by being surrounded by regions whose biology was obscure, even at the most basic level of knowing what species were present. For example, the doctoral dissertation of Joseph Grinnell, third editor of *The Condor,* was a faunal analysis of a large area that was essentially unknown to biology, the Colorado River Valley that lies on the border between California and Arizona (Grinnell 1914a).

A major purpose underlying the establishment of *The Condor* therefore was to allow a focus on the ornithology of western North America. The geographic emphasis was conspicuous and purposeful. Volume 1 of what was to become *The Condor* was entitled the *Bulletin of the Cooper Ornithological Club* and was subtitled *A Bi-monthly Exponent of Californian Ornithology.* Indeed, the early bylaws of the Cooper Ornithological Club restricted membership to "bona fide residents of California" (Swarth 1929). The geographic distinction inherent in the subtitle gradually broadened, first to *A Bi-monthly Magazine of Pacific Coast Ornithology* (1901) and then to *A Magazine of Western Ornithology* (1902–1947). The regionally restrictive subtitle was eliminated in 1947, with *The Condor* then describing itself as the *Journal of the Cooper Ornithological Club* (or *Society,* after 1952). A purposeful regional focus was still evident through at least the 1950s; the Instructions to Contributors stated that ". . . geographic areas of primary concern are western North America, Central America, and the Pacific Basin."

Today, describing a journal as of regional focus often is taken as derogatory. For *The Condor* in its early years, this is unfair. It clearly was of primary importance to develop mechanisms for the isolated group of

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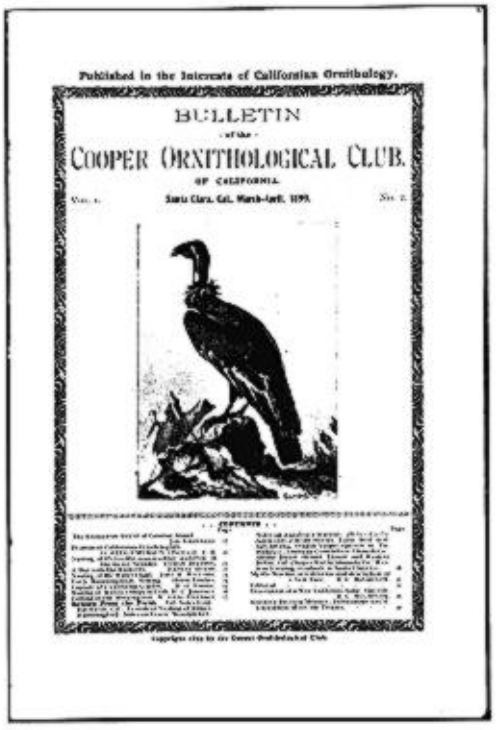
FIGURE 1. Evolution of *The Condor.* Representative journal covers from volume 1 (1899; top, left), volume 2 (1900; top, right), volume 13 (1915; bottom, left) and volume 88 (1986; bottom, right). Artwork by W. Otto Emerson (vol. 1 & 2), Walter K. Fisher (vol. 13), and J. Laurence Murray (vol. 88). The current cover was introduced in 1987, although the subtitle was changed in 1988 from "Journal of the Cooper Ornithological Society" to "A Journal of Avian Biology."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BULLETIN
of the
COOPER ORNITHOLOGICAL CLUB.
OF CALIFORNIA


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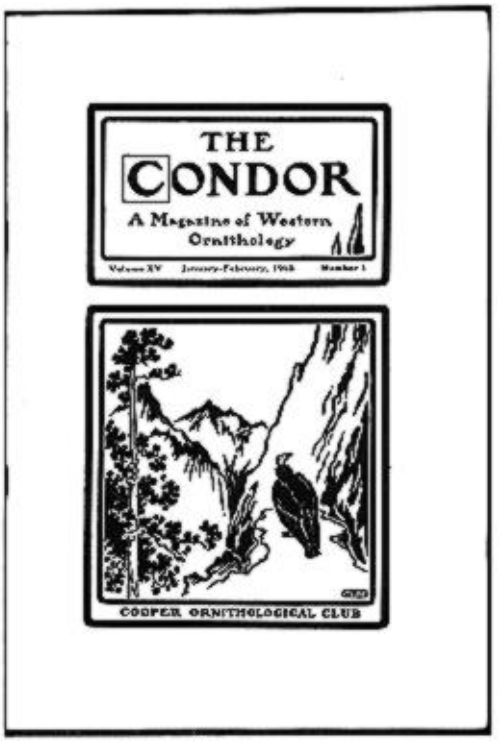
JANUARY-FEBRUARY, 1900.

The CONDOR

Cooper Ornithological Club. Santa Clara, California.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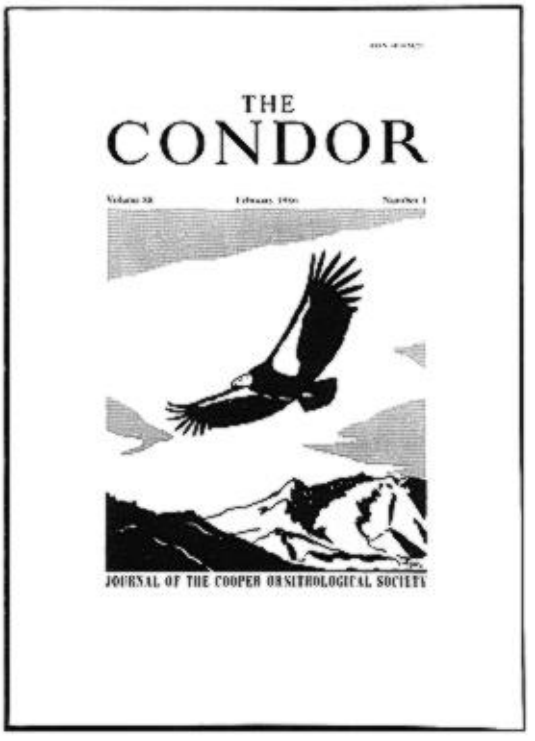
THE
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JOURNAL OF THE COOPER ORNITHOLOGICAL SOCIETY

scholars in the West to communicate with each other and to allow a special focus on the biology of western North America. The establishment of a separate ornithological society and journal in that region thus was both logical and fortunate for avian biology.

EARLY HISTORY

The Cooper Ornithological Club was first organized in 1893 in San Jose, California. The group initially was small, totaling only 17 members by the end of that year (Swarth 1929). Commencing in 1894, the first official organ of the club was *The Nidiologist.* That journal, edited and published by H. R. Taylor, halted publication in 1897. *The Osprey,* a monthly magazine of which Chester Barlow, first editor of *The Condor,* had been a founder (Allen 1896) was the club's outlet in 1897 and 1898 (Swarth 1929). It rapidly fell into disfavor with the membership because of the reduced space that the editor, Elliot Coues, would devote to Cooper Club matters (Barlow 1898). In 1898, therefore, the club resolved to publish its own periodical. This was courageous, considering the slender resources of the group. At one meeting during this period, it was announced that "the receipt of 10 cents in the previous month has brought the treasury up to the amount of twenty-five cents" (Swarth 1929)!

TABLE 1. Editors of *The Condor* and years in which they served.

Chester Barlow	1899–1902
Walter K. Fisher	1902–1905
Joseph Grinnell	1906–1939
Alden H. Miller	1939–1965
James R. King	1966–1968
Ralph Raitt	1969–1971
Francis S. L. Williamson	1972–1974
Peter Stettenheim	1975–1985
Martin L. Morton	1986–1990
Glenn Walsberg	1991–

In 1899, therefore, the *Bulletin of the Cooper Ornithological Club* was initiated with Chester Barlow as editor. Barlow was a young, enthusiastic, and energetic ornithologist who was a considerable force in the pioneering years of the society (Allen 1903, Taylor 1903). He played key roles in stimulating the formation of the club, organizing it and its meetings, and encouraging it to publish its own periodical. Barlow edited the journal for four years, before dying at the age of 28 from

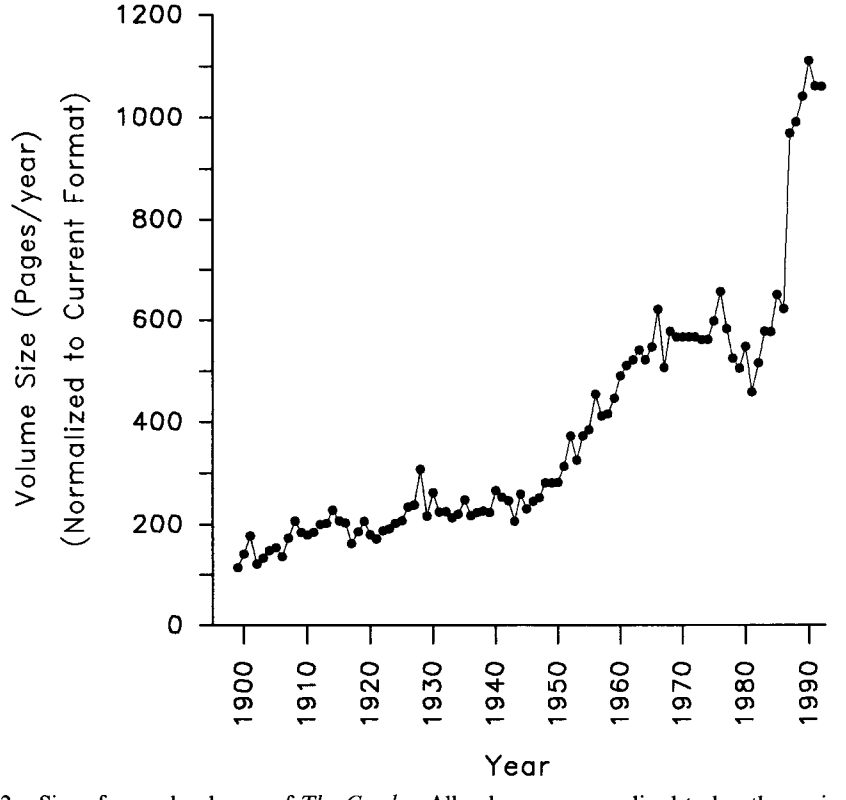


FIGURE 2. Size of annual volumes of *The Condor.* All values are normalized to lengths equivalent to that which would be required to publish the same material in the journal's current format by taking into account alterations in the number of characters per page.

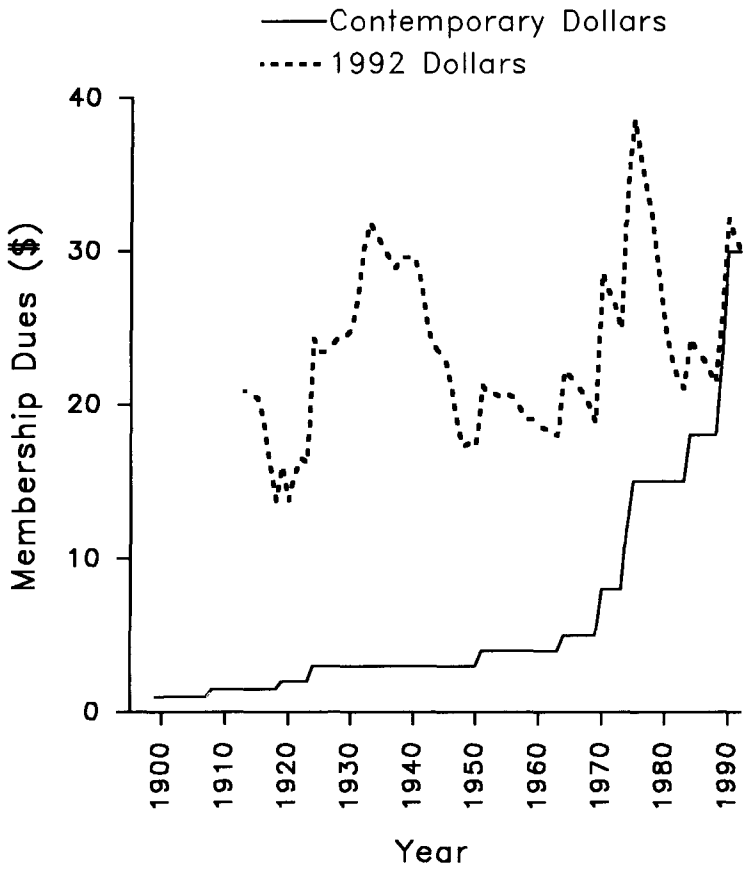


FIGURE 3. Annual membership dues for the Cooper Ornithological Society. Data are presented both in actual dollar values for the year of publication as well as values normalized to 1992 dollars. The latter normalization accounts for changes in the purchasing price of the dollar and is based upon the Consumer Price Index published monthly in the *Monthly Labor Review* or its antecedent the *Monthly Review of the United States Bureau of Labor* (U.S. Dept. of Commerce, Bureau of Labor Statistics, 1919–1944; U.S. Dept. of Commerce, Bureau of Labor Statistics, 1945–1992).

tuberculosis. He was succeeded by Walter K. Fisher, who served for three years. (Of the first four editors, three died in office. Fisher survived the job, but fled to invertebrate biology after his experiences as an ornithological editor.) The journal's name was changed to *The Condor* in 1900, based upon concerns that the previous name was cumbersome. The first printer was Charles A. Nace, who published the journal for the next 25 years. Nace was an opportune choice, as he was a rather casual individual. This trait caused difficulties when expressed in his correcting of proofs, but was more than compensated for by his similar nonchalance in financial matters. He "did not regard the prompt payment of bills as essential to his happiness," which was important in his ability to deal with ornithologists (Swarth 1929).

In 1906, Joseph Grinnell assumed the editorship. Grinnell stands as one of the most prominent zoologists in the history of western North America and undoubtedly has been one of the people who most influenced *The Condor*. Not only was he editor during early developmental phases of the journal, he held the position for 34 years—longer than any other person. Editors since 1965 typically have served 3–5 years. Peter Stettenheim showed exceptional tenacity and held the position for 11 years. Grinnell and his successor Alden H. Miller, however, served for extraordinarily long periods (Table 1). For the first two-thirds of *The Condor*'s history, therefore, it was edited by Californians. Indeed, for 58 years the editorial office resided within the Museum of Vertebrate Zoology of the University of California at Berkeley. Some of Grinnell's procedures were striking for their democracy, reflecting the much smaller size of the Cooper Ornithological Society (COS) at the beginning of this century. In 1907, for example, Grinnell asked members to vote on several editorial issues such as whether the metric system, antecedent to the modern SI system of units, should be used exclusively. The membership rejected this apparently radical notion, 18:5. (Today, by editorial fiat rather

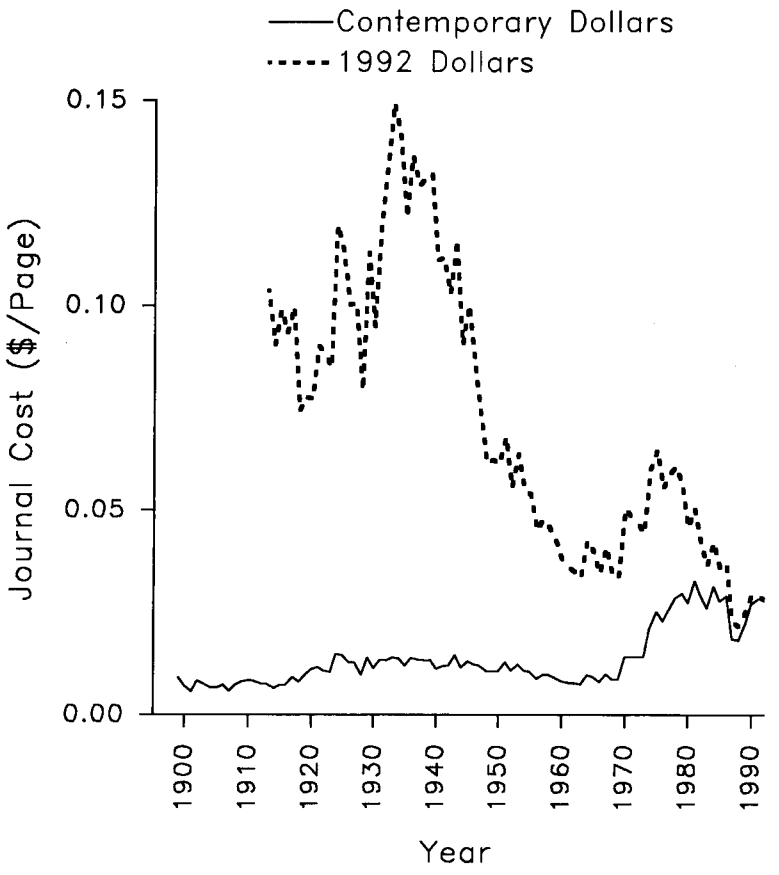


FIGURE 4. Cost of *The Condor* to members of the Cooper Ornithological Society, calculated on a per-page basis. Values were calculated by combining data presented in Figures 1 and 2. All values are normalized to lengths equivalent to that which would be required to publish the same material in the journal's current format by taking into account alterations in the number of characters per page. Costs are calculated for both actual dollar values at the time of publication as well as values normalized to 1992 dollars, as described for Figure 2.

than democratic consent, the SI system is used exclusively.) Grinnell also asked the membership's opinion on an issue that could have greatly affected the journal's development: he wanted to expand it to deal with all vertebrates (Grinnell 1914b). Although most members apparently supported this, Grinnell withdrew his suggestion because of the limited enthusiasm of the majority and the intense opposition of the minority (Grinnell 1914c). Grinnell also was an advocate of "simplified spelling," a controversial turn-of-the-century movement intended to create a more phonetic version of written English. Thus, early issues of *The Condor* often included phrases such as "a monograf on fesants."

When Joseph Grinnell died in 1939, Alden H. Miller—Grinnell's former student and Associate Editor of *The Condor* since 1933—assumed the editorship as well as Grinnell's position as Director of the Museum of Vertebrate Zoology. Similar to Grinnell, Miller was a scientist of diverse interests who appreciated laboratory, field, and museum approaches. His research interests encompassed systematics, paleobiology, molt, anatomy, ecology, and physiology (Davis 1967). This breadth was fortunate, because Miller held the editorship for 26 years. During this period, Miller was importantly aided by his students whom he involved in the editorial process in the capacity of both Associate Editors and Assistant Editors. Associate Editors included, for example, Frank A. Pitelka (1946–1962), John Davis (1959–1965), and Ned K. Johnson (1965). Pitelka's 17 years of service as Associate Editor were exceeded only by Jean M. Linsdale, who served from 1929 to 1950. At times of extended absence by Miller, Associate Editors such as Pitelka took full charge of the journal for periods of months and saw entire issues through the publication process (F. A. Pitelka, pers. comm.). The last of Miller's Associate Editors were Ned K. Johnson and John Davis. They essentially became acting Editors in 1965 in the interim between Miller's death and James King's assumption of the editorship, and were responsible for the final issue produced at Berkeley.

The broadening range of submissions to *The Condor*

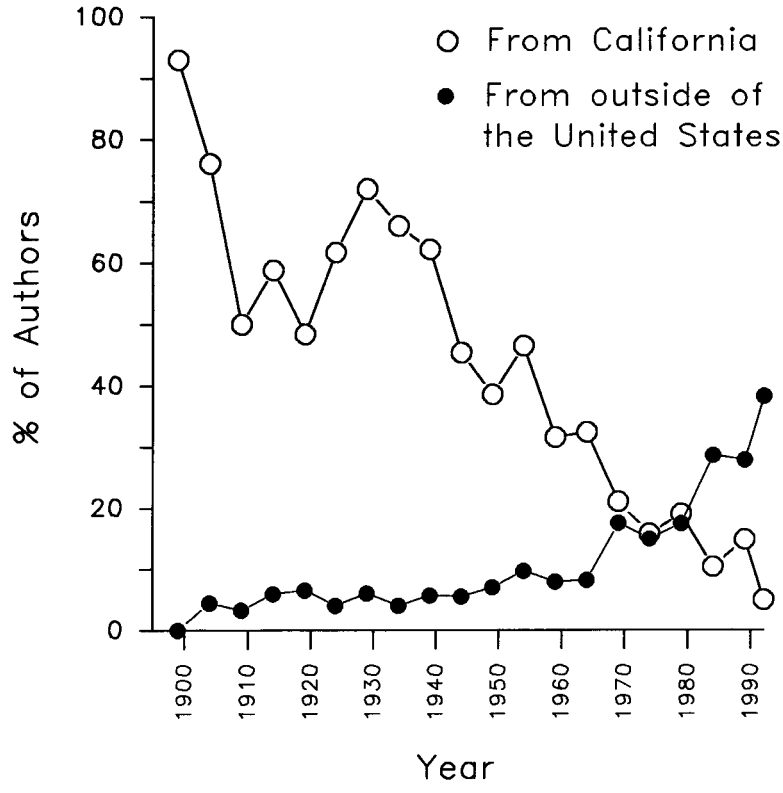


FIGURE 5. Geographic location of authors publishing feature articles in *The Condor*. Data are for entire annual volumes, collected at five-year intervals from the inception of the journal. Data also are presented for the most recent annual volume (1992).

led to the formation of an editorial board in 1951 to advise on acceptability of manuscripts for publication. It apparently was James King, however, who instituted a system by which essentially all submissions were subjected to external peer review. King, then an Associate Professor of Zoophysiology at Washington State University, assumed the editorship after Miller's death in 1965. For the first time, therefore, the editorial office left California. Subsequent editors resided in New Mexico (Raitt), Maryland (Williamson), New Hampshire (Stettenheim), California (Morton), and Arizona (Walsberg).

King's editorship also marked the clear separation of the editing of *The Condor* and *Pacific Coast Avifauna*. The latter had been initiated in 1900 as the monograph series of the COS. The first 34 volumes of *Pacific Coast Avifauna* were edited either by *The Condor*'s editor or co-edited by that person and Associate Editors. Volume 35 of *Pacific Coast Avifauna*, however, was edited by John M. Davis and Gene M. Christman at Berkeley while James King was editor of *The Condor*. This separation of responsibilities continued through the subsequent, and final, two volumes of *Pacific Coast Avifauna* and the 14 volumes to date of its successor, *Studies in Avian Biology* (initiated in 1978). Lesser known and, alas, extinct is a third publication by the Society that was issued at meetings in the 1920s. Entitled *The Buzzard* and "published by the Cuckoo Ornithological Club" with the motto "*Veritas vomicus*," this lampoon provided worthy competition for *The Auklet*.

CHANGES IN JOURNAL SIZE AND COST

Since its inception, *The Condor* has expanded more than nine-fold in size (Fig. 2). During Grinnell's tenure from 1907 until 1939, the journal gradually enlarged from the equivalent of 173 to 223 current-format pages. The growth rate increased under Alden Miller's stewardship, with *The Condor* stabilizing at 510–560 current-format pages in the early 1960s. Size again increased dramatically when Martin Morton was editor in the late 1980s and reached its current level of about 1,000–1,100 pages per year. This is the greatest size of any major ornithological journal.

Not unexpectedly, increased journal size and monetary inflation combined to substantially increase apparent costs to members (Fig. 3). Starting at $1 in 1899, annual costs to COS members increased only gradually for many years and were still merely $5 in 1969. Since then, rates have increased more rapidly and now stand at $30. The bases of these increases cannot be neatly dissected, but some insights are possible. Remarkably,

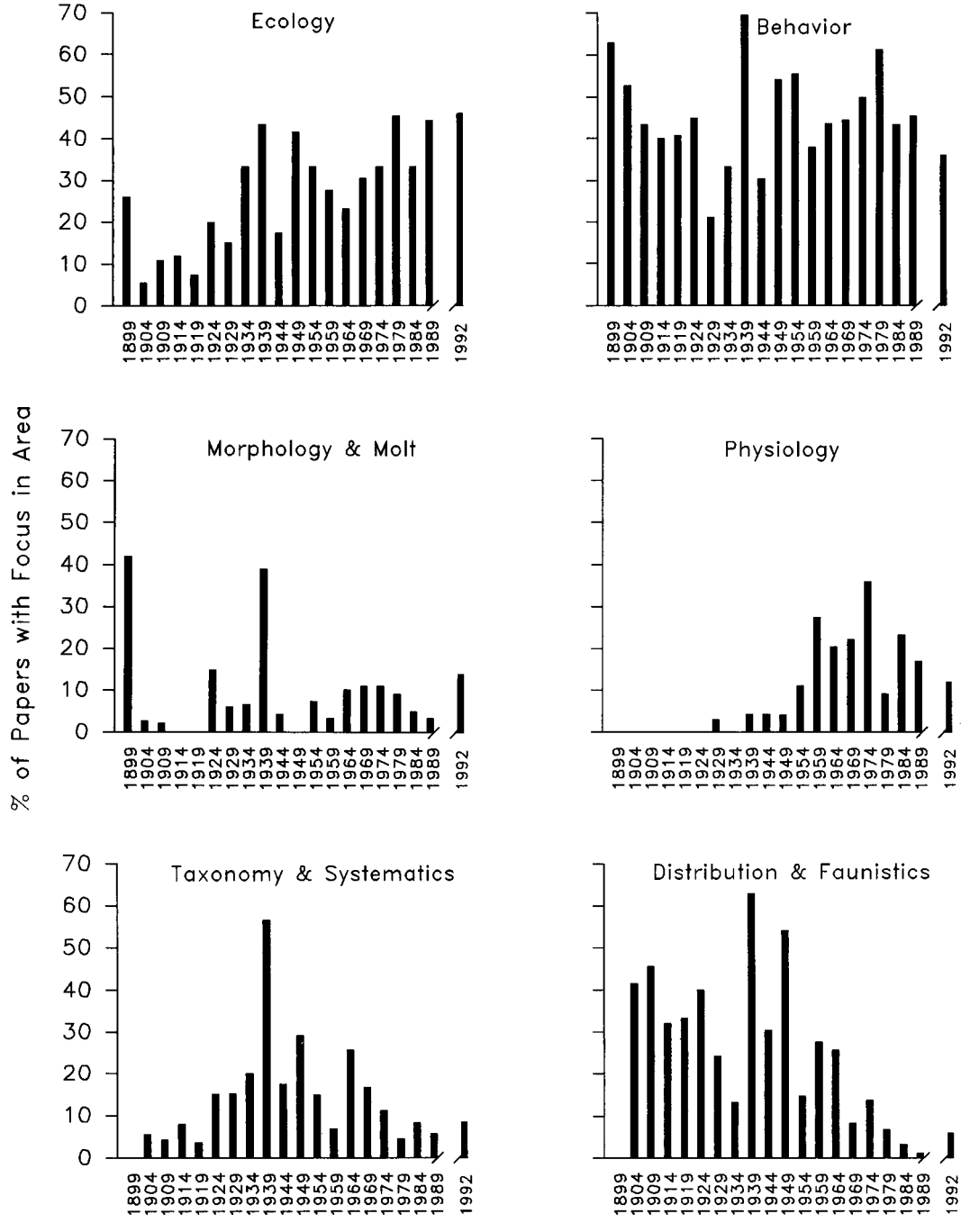
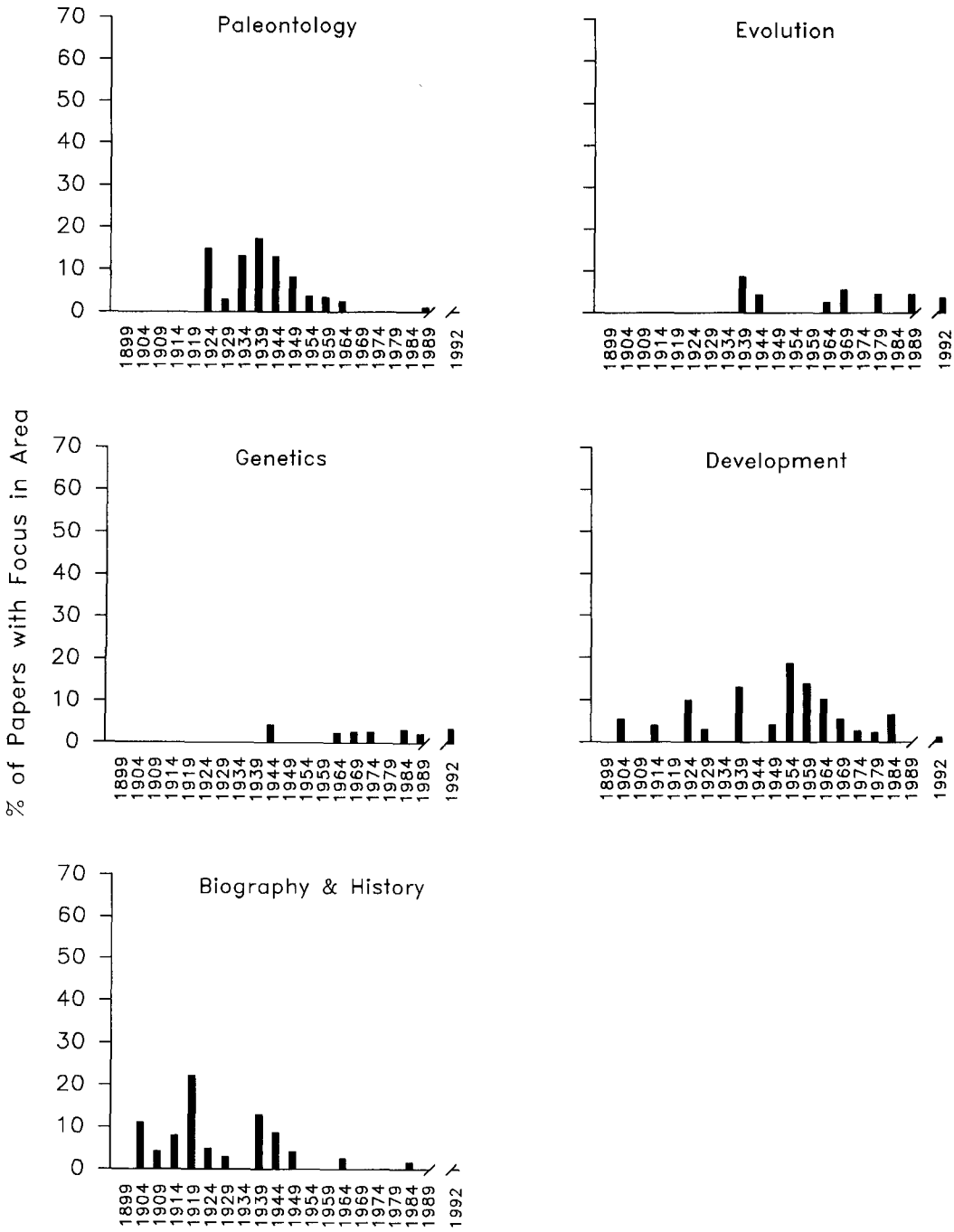


FIGURE 6. Frequency at which articles included a substantial focus on particular subdisciplines of avian biology. Values are for feature articles only and do not subsume Short Communications or papers published in the antecedents to that section. Individual papers commonly focus on multiple areas; thus, a single paper may be counted more than once and the values for the bars do not sum to 100%. Data are for entire annual volumes,



collected at five-year intervals from the inception of the journal. Data also are presented for the most recent annual volume (1992). Obviously, identification of subdisciplines and assignment of papers to them is highly subjective and idiosyncratic to the author.

these indicate that *The Condor* has substantially decreased in its relative cost. A major factor is the great decline in the purchasing power of the American dollar in the last 90 years. In 1913, for example, $1 had purchasing power equivalent to $13.96 in 1992 funds (Eisele 1975, U.S. Dept. of Labor, Bureau of Labor Statistics 1919–1944, U.S. Dept. of Labor, Bureau of Labor Statistics 1945–1992). Accounting for such changes reveals that current membership dues are similar to those of 60 years ago. Given the increase in journal size, costs per page (normalized to 1992 dollars) have declined precipitously with time (Fig. 4). For example, costs in the 1930s averaged about $0.13 per current-format page. Costs today are about $0.03 per page, or 77% lower.

Many mundane examples of historical price changes could be cited to reinforce this conclusion that the relative cost of *The Condor* has greatly declined. In 1935, for example, the first edition of *A Field Guide to the Birds* by R. T. Peterson was advertised for $2.75 in *Bird-Lore* (vol. 37). In the same year, a COS member paid dues of $3.00 and received an annual volume of *The Condor* that was equivalent in length to about 249 current-format pages. The 1935 price of the book therefore would purchase the equivalent of about 228 current-format pages of the journal. Peterson's book, remarkably, is still in print 58 years later and the fourth edition costs $17.95 (from *Books in Print*). COS dues are now $30, for which a member received an annual set of *The Condor* totalling 1,060 pages in 1992. Thus, the current price for the field guide equals the cost of about 636 pages of the journal; this is nearly three times more than in 1935. Economic and monetary systems are notoriously resistant to credible analysis and have altered dramatically during the last 90 years. It is clear, however, that *The Condor* is a better bargain today than in the past.

CHANGES IN JOURNAL CONTENT

Since 1899, *The Condor* has changed from a regional journal to one that is truly international. This, of course, is associated with its increased prominence, the tremendous strengthening of academic and scientific institutions in western North America, and the complete integration of this region within the global intellectual network. A useful index of this internationalization is the location of contributing authors (Fig. 5). In 1899, nearly all were from California. By 1992, only 5% were located in that state. The representation of authors from outside of the United States has increased in a complementary fashion. Prior to the middle 1960s, non-U.S. authors typically accounted for only 3–10% of the total (Fig. 5). This percentage has increased steadily since then. The bases for this increase are doubtlessly complex, but it is striking that increased international contributions coincided with the end of a long-standing editorial policy favoring publication of papers by members of the Cooper Ornithological Society. The journal was, of course, first created as an outlet for publications by members of this group. When Grinnell was editor, the Information to Contributors simply stated that "Articles . . . are published by Club members" and this policy remained during Alden Miller's tenure as editor, although it was occasionally relaxed. Given that the Society was primarily a regional organization, this certainly discouraged submissions from scientists in other geographic areas and consequently reinforced the regional focus. James King eliminated this preference when he assumed the editorship in 1966. King considered a regional focus to be outdated and counter-productive; soon after this change, submissions by authors outside of North America increased substantially (J. R. King, pers. comm.). By 1992, fully 40% of the papers published were written by scientists outside of the United States (Fig. 5).

TOPICAL REPRESENTATION

The subjects addressed in *The Condor* vary widely, with the only restriction currently being that they pertain to the biology of wild species of birds. Clearly, the emphases within each of the broad areas identified in Figure 6 have changed dramatically over the years. I leave to authors of future essays in this section to describe the history of particular disciplines, but will note some large-scale trends. One is that current papers tend to be much more quantitative and more frequently comparative or experimental rather than only descriptive. The increasingly quantitative and statistical nature of papers is, in itself, challenging to quantify. One simple measure is whether authors incorporated any index of statistical dispersion or variability in their articles. Such use was first noticeable in the 1940s, but occurred in less than one-third of papers published before 1960. Employment of these indices increased dramatically after the 1960s and now are used in more than 95% of feature articles.

Clearly, bird behavior has been a frequent focus, as has been avian ecology (Fig. 5). Although consistent themes in *The Condor,* the content of such papers has changed markedly from being almost always anecdotal and descriptive accounts to current papers that typically are experimental or comparative studies. Not unexpectedly, reports of bird distribution and faunistic analyses were much more common early in the journal's history when it had a specific regional focus and when bird distribution in western North America was poorly known. During the period in which these papers were relatively most frequent, they usually dealt with the western United States, western Canada, or Mexico. This emphasis has dwindled, as has the mid-century emphasis on taxonomy and systematics that also dealt largely with forms characteristic of western North America or Central America. The area that has shown the greatest increase in frequency within the last 40 years is avian physiology, reflecting an increased emphasis upon experimental approaches to avian biology (Fig. 6). For many years, *The Condor* was one of the most important outlets for such research. Since the late 1970s, however, the fractional representation of such contributions has markedly declined. Inspection of my personal reference system strongly suggests that workers in this area simply have turned more frequently to a wide range of other journals in which to publish their work.

Finally, note the larger fraction and greater absolute number of papers devoted to paleontology from the 1920s through the 1940s than is currently the case. Most of these papers were produced by just three workers: Loye Miller, Hildegarde Howard, and Alexander Wetmore. This exemplifies the influence that a very

limited number of workers can have on a journal's contents and on a major aspect of avian biology.

CONCLUDING COMMENTS

One prevalent banality regarding modern science is that it is a harshly competitive enterprise. It therefore is striking that production of periodicals such as *The Condor,* which play a central role in science by disseminating insights gained from research, are communal endeavors resulting from a series of voluntary and cooperative acts by numerous individuals. Certainly, several thousand people have contributed to the success and development of this journal in its 95-year history. In 1992 alone, 653 scientists aided in its production in the roles of author, reviewer, or both. For authors, this meant that they selected *The Condor* rather than one of many other outlets available for their work. For reviewers, this meant donating their efforts voluntarily and despite intense competition for their time, but with the result of a great increase in the average quality of the papers published. Unfortunately, I cannot conclude these comments in the fashion I would prefer. That would be by describing historical changes in the single most important characteristic of a scientific journal, its overall scholarly quality. Perceived quality of a journal is highly subjective, reflecting the biases, knowledge, and perspicacity of the reader. These difficulties have led to the use of numerical indices to quantify various attributes assumed to be correlated with overall quality, such as the frequency at which a journal's contents are cited in subsequent works. This grossly simplified index is used most commonly by academic bureaucrats as a substitute for thoughtful, informed, and subjective evaluations. With obvious caveats and some trepidation, however, I note that in 1991 (the most recent year for which data are available) *The Condor* was either the first- or second-most frequently cited ornithological journal in the world, depending upon the manner in which citations are counted. Given the ultimately pragmatic nature of science, *The Condor*'s role as a particularly useful resource for avian biologists is perhaps the best recognition for the efforts of the many individuals who have contributed to its development.

I thank Veronica Alexander, Pamela Heath, Richard E. Johnson, Mary E. Murphy, and Blair O. Wolf for their assistance in the production of this essay. I also thank Russell P. Balda and Frank A. Pitelka for their helpful comments. Finally, I am grateful to J. Michael Scott for suggesting Figure 1 and Blair O. Wolf for providing the covers used in that figure.

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