



LETTER TO THE EDITOR

## Membership trends in the American Ornithologists' Union and the evolving role of professional ornithological societies

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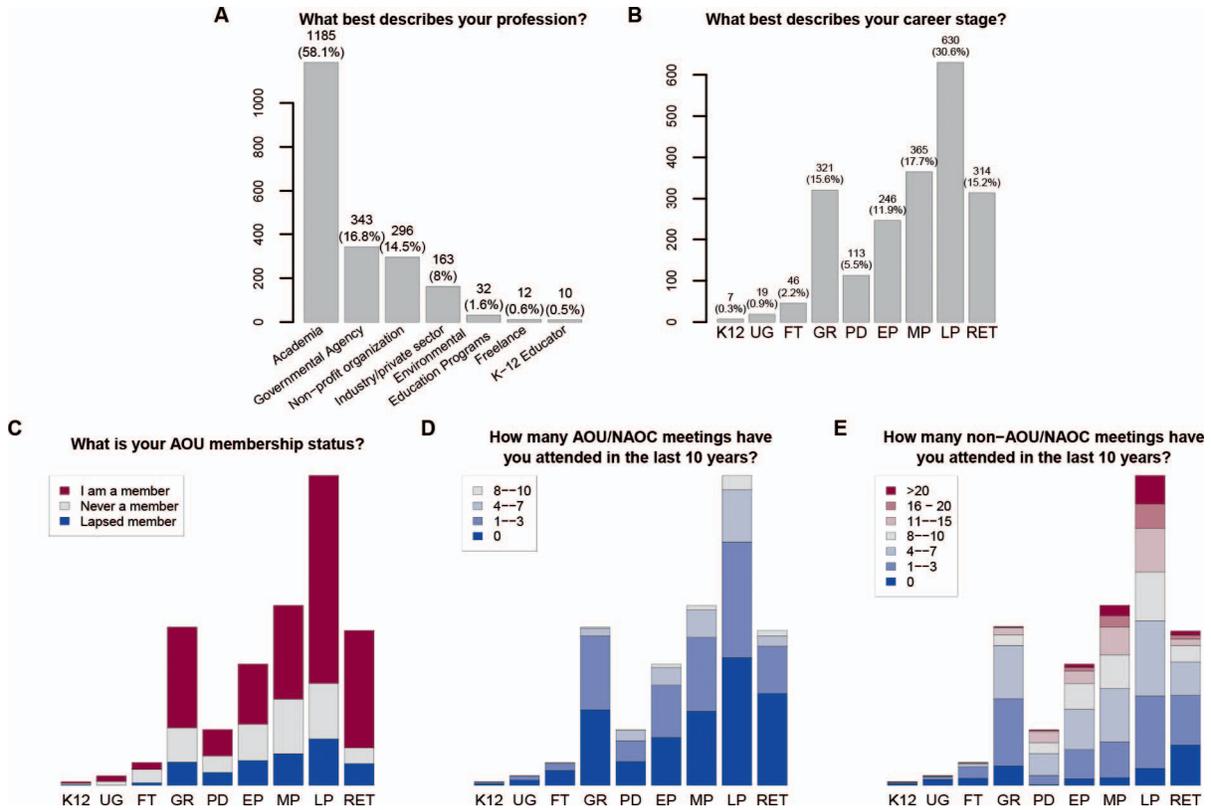
Since its inauguration in 1883, the American Ornithologists' Union (AOU) has striven to advance the scientific understanding of birds, enrich ornithology as a profession, and promote a rigorous scientific basis for the conservation of birds. Although the AOU has successfully pursued this mission for more than 130 years, membership in the AOU—like many scientific and academic professional societies—has recently declined. Recent membership trends prompted officers, council members, and committee members to reflect on how the AOU can better support ornithologists across all career stages and types. The AOU consequently initiated a long-range planning initiative and formed the Membership Committee in 2015 to design and disseminate a questionnaire composed of both closed-ended (Supplementary Material Table S1) and open-ended (Supplementary Material Table S2) questions to survey current members, lapsed members, and non-members. Here, we analyze trends in these data and share unedited survey responses to promote transparency and engender discussion about how the AOU can better serve ornithologists and the field of ornithology.

### Survey Demographics and Closed-ended Question Responses

The online survey was open from April 29 to June 12, 2015, and obtained responses from a wide breadth of career paths (Figure 1A) and career stages (Figure 1B). Of the 2,061 respondents, 1,258 were current AOU members, 331 were lapsed members, and 472 had never been members (Figure 1C). Although respondent attendance at AOU and non-AOU meetings has varied substantially over the last 10 years (Figure 1D and E), 55% of respondents attended at least one ornithological meeting in which AOU was a participating society. The respondents to this survey represent the diversity of the ornithological community, varying in professional age, career path, and relationship with the AOU.

The majority of current AOU member respondents have been members for at least 16 years (Figure 2A) and initially joined as graduate students (Figure 2B). Many late-career professionals cited their shared identity with the society and recommendations from their advisor(s) as initial reasons for joining the AOU, whereas many current students joined for grant and award opportunities (Figure 2C). Most current members maintained their membership because of AOU's impact on ornithology and birds as well as member-only benefits (Figure 2D). The most valuable member-only benefit offered by the AOU when considering all career stages together was access to *Birds of North America* (BNA; [bna.birds.cornell.edu/bna/](http://bna.birds.cornell.edu/bna/)); among students, however, reduced meeting registration costs and travel and/or research awards were most commonly identified as important member-only benefits. Access to hard copies of the journal was far more important for late-career and retired professionals (Figure 2E). More respondents used the bimonthly newsletter from the Ornithological Societies of North America (OSNA) to stay abreast of ornithological society news than other online platforms, such as Twitter or Facebook, although the importance of different news outlets varied among career stages (Figure 2F). Most current members have been engaged with the AOU through service associated with publications, meetings, and AOU committees (Figure 2G). For the post-graduate student career stages, approximately half of the respondents identified the AOU as their "home" academic society. Only 33% of the graduate student respondents considered the AOU to be their home society, and 47% responded that it was "too early to tell" (Figure 2H). Most respondents were "very likely" to recommend students of professional colleagues to join the AOU across career stages (Figure 2I).

Lapsed AOU members represented 16% of the respondents, the majority of which were retired, late-career, or mid-career professionals. The majority of lapsed members ended their AOU membership when they were post-docs



**FIGURE 1.** General statistics of survey respondents, including (A) professions (including 20 respondents who responded “other” and are not included in this barplot), (B) career stages, (C) AOU membership status, (D) the number of AOU or NAOC meetings attended in the last 10 years, and (E) the number of non-AOU meetings attended in the last 10 years. For panels (A) and (B), the number of respondents and the corresponding percentages are shown above each bar. For panels (C), (D), and (E), the possible answers and corresponding colors are shown in each panel legend. The abbreviations below each bar correspond to career stages: K12 – kindergarten through high school; UG – undergraduate; FT – field or research technician; GR – graduate student; PD – postdoctoral researcher; EP – early-career professional; MP – mid-career professional; LP – late-career professional; RET – retired.

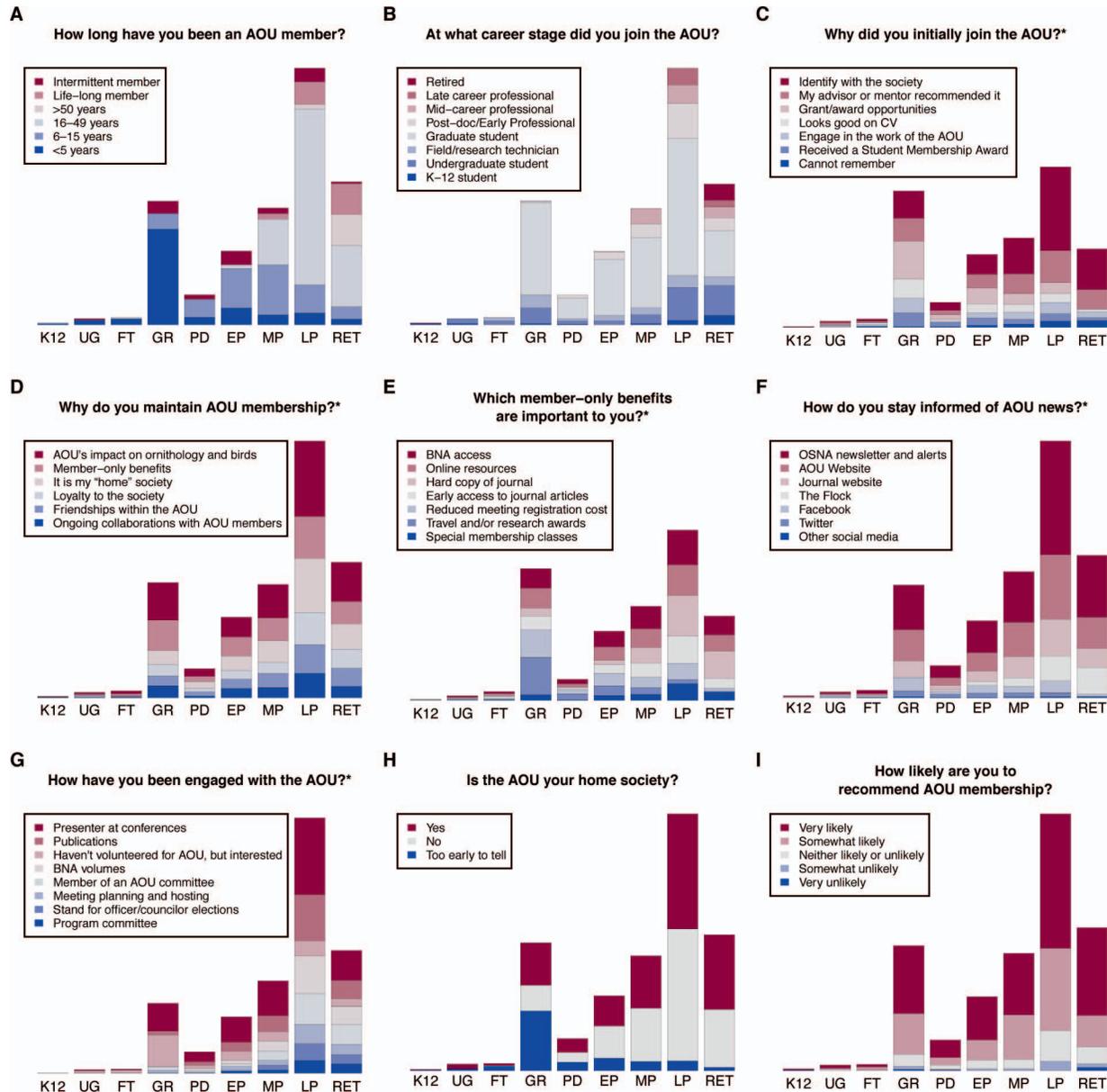
or early professionals (Figure 3A) and indicated the cost of membership as the primary reason (Figure 3B). Many lapsed members responded that additional tiered membership options would prompt them to reconsider AOU membership (Figure 3C). As of the 2016 membership renewal period, the AOU now offers a reduced membership rate for early professional members.

Individuals who have never been members of the AOU represented 23% of the survey respondents and were mostly involved in basic or applied professional research, conservation initiatives, and/or education (Figure 4A). Of the 472 respondents in this category who conduct research on birds, most indicated that their research is driven by questions rather than birds as a taxon, although career stages did vary with respect to the proportion of taxonomic-driven vs. question-driven research (Figure 4B).

**Open-ended Question Responses**

We provided respondents with the opportunity to elaborate on their perspectives and opinions through open-

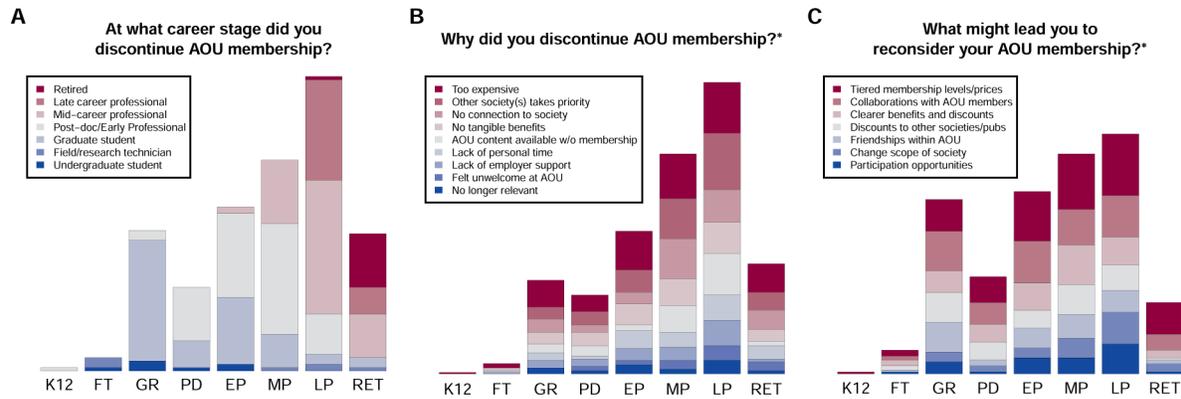
ended questions. To summarize the qualitative, open-ended data, the 3 authors independently assigned each response to one of 19 categories (Figure 5; [Supplementary Material Table S2](#)). We removed responses assigned to the “No” and “Satisfied” categories to generate stacked bar plots to highlight which aspects of the AOU were mentioned in open-ended responses. We also removed responses that suggested free membership, which is not a business model the AOU is considering. If a response was assigned to 2 different categories among the 3 survey reviewers, it was labeled with the majority category. If all 3 survey reviewers differed in their assignment of a particular response, we collectively conferred to decide the consensus category for the purposes of presenting our findings here. We have included anonymous, unedited versions of these responses in the online Supplementary Material to make our analysis transparent. We encourage readers to explore individual and collective perspectives regarding membership and future directions of the AOU ([Supplementary Material Table S2](#)).



**FIGURE 2.** Survey responses for questions asked to current AOU members. The question posed to survey respondents is shown at the top of each panel. Questions with asterisks indicate that the respondents could select all applicable responses. Each panel legend displays the possible answers and the corresponding colors. The abbreviations below each bar correspond to career stages: K12 – kindergarten through high school; UG – undergraduate; FT – field or research technician; GR – graduate student; PD – postdoctoral researcher; EP – early-career professional; MP – mid-career professional; LP – late-career professional; RET – retired.

We asked current AOU members how the AOU could further support their ornithological endeavors. Among the current members that did not respond “No” or “Satisfied,” responses related to the society’s publications, namely *The Auk: Ornithological Advances*, were most common (Figure 5A). Many respondents in this category prefer hard copies of the journals, whereas some expressed issue with the current lack of natural history notes, the name of the journal, or the change in content and scope of *The Auk*:

*Ornithological Advances* (Supplementary Material Table S2). Many respondents highlighted the importance of funds for AOU members to conduct research and attend conferences; within this category, some respondents suggested that the AOU should establish additional funding opportunities for post-docs or ornithologists outside of academia. Other respondents suggested the AOU should provide more professional development opportunities for ornithologists across career stages and

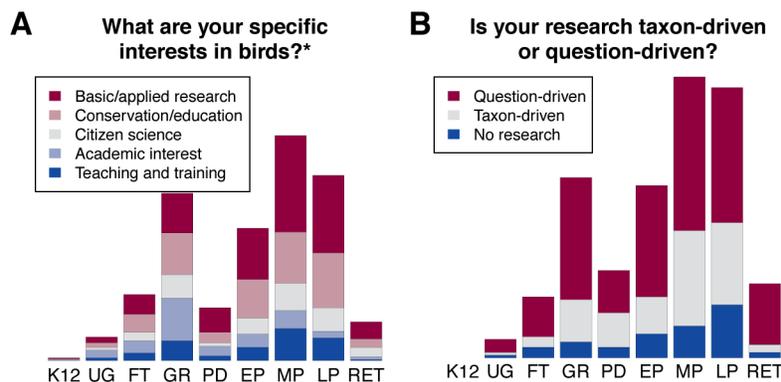


**FIGURE 3.** Survey responses for questions asked to lapsed AOU members. The question posed to survey respondents is shown at the top of each panel. Questions with asterisks indicate that the respondents could select applicable responses. Each panel legend displays the possible answers and the corresponding colors. The abbreviations below each bar correspond to career stages: K12 – kindergarten through high school; UG – undergraduate; FT – field or research technician; GR – graduate student; PD – postdoctoral researcher; EP – early-career professional; MP – mid-career professional; LP – late-career professional; RET – retired.

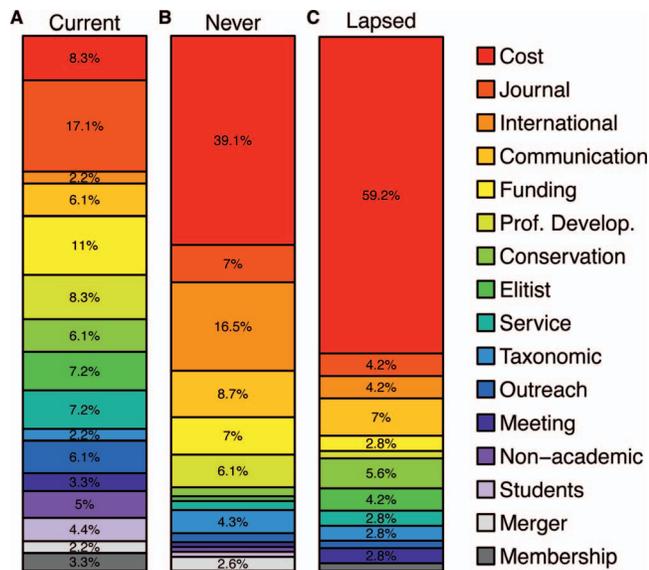
increase minority representation. Some current members lamented a sense of “elitism” within the AOU, expressing that the AOU is not inclusive toward all members and other ornithological societies. These concerns were often attributed to the perceived lack of transparency regarding decisions about selection of individuals for the tiered membership classes and committee participation. Communication was also an issue for many respondents; some current members were unaware of certain membership benefits, such as access to Birds of North America Online, or did not know how they could volunteer their efforts for AOU service initiatives such as committees (Supplementary Material Table S2). Finally, many current members responded with only positive feedback and cited services provided by the AOU and its affiliates, such as the

Ornithological Council, as important reasons for their continued membership and financial support.

We asked survey respondents who have never been AOU members if there is anything the AOU could offer them to consider joining the AOU. In this membership category, 92 out of 210 respondents responded “No” or requested free membership (Supplementary Material Table S2). Among the remaining respondents (Figure 5B), monetary cost of membership was the most common concern. Many respondents who have never been AOU members suggested that increased interactions with ornithologists working in countries other than the United States and Canada—particularly regions in Latin America—would entice them to consider membership. Issues associated with communication regarding the benefits of member-



**FIGURE 4.** Survey responses for questions asked to respondents who have never been AOU members. The question posed to survey respondents is shown at the top of each panel. Questions with asterisks indicate that the respondents could select all applicable responses. Each panel legend displays the possible answers and the corresponding colors. The abbreviations below each bar correspond to career stages: K12 – kindergarten through high school; UG – undergraduate; FT – field or research technician; GR – graduate student; PD – postdoctoral researcher; EP – early-career professional; MP – mid-career professional; LP – late-career professional; RET – retired.



**FIGURE 5.** Categorized survey responses to open-ended questions regarding what the AOU could do to serve the ornithological community in the future for (A) current, (B) lapsed, and (C) never members of the AOU. The percentage corresponding to each category is shown if it is >2%. Full responses to the open-ended questions are available in the supplementary material (Supplementary Material Table S2). The categorizations for each open-ended response are as follows: cost – cost of the journal, membership, and/or meetings; journal – *The Auk*, manuscript quality, hard-copy vs. online; international – engagement between AOU and international ornithologists; communication – communication between the society and its members; funding – more funding opportunities for research; prof. develop. – more professional development opportunities; conservation – involvement in conservation-related issues; elitist – a feeling of being excluded and/or marginalized by the AOU; service – services provided to ornithologists, such as the Ornithological Council, data archiving, etc.; taxonomic – respondent is less tied to birds as a focal organism, and their research is more question based; outreach – public outreach, science education, communication to the public, citizen science; meeting – aspects of the annual meeting, such as size, timing, topics, location, etc.; nonacademic – engage with more nonacademic and nonprofessional ornithologists; students – student engagement and opportunities; merger – response pertains to the merger of ornithological societies in North America; membership – membership categories and transparency about elective and fellow membership.

ship, journal access, and the publishing process were also repeatedly mentioned (Supplementary Material Table S2).

We asked AOU members who have let their membership lapse what the AOU could offer to make them reconsider their membership. Out of 121 respondents, 46 respondents (38%) responded “Nothing” (Supplementary Material Table S2). Among the remaining respondents (Figure 5C), monetary cost was by far the most common reason for discontinuing membership. In particular, many early professionals, who most commonly lapsed in

membership (Figure 3A), suggested that reduced membership fees would entice them to reconsider membership. The remaining responses were distributed approximately evenly among the other categories.

Among all respondents, there were several themes that emerged in addition to those mentioned above. Several individuals expressed concern that the AOU was not involved enough in conservation efforts, and several others identified the lack of physiology-related sessions at the annual meetings. Additionally, there were a variety of strongly held opinions regarding the potential merger between the AOU and the Cooper Ornithological Society (COS), which were provided to AOU and COS leadership and have figured prominently in ongoing merger discussions (Supplementary Material Table S2).

### Inferences and Courses of Action

The role of ornithological societies has clearly changed since the AOU was founded in the late 19<sup>th</sup> century. Until recently, many ornithologists primarily maintained membership with the AOU to gain access to the society journal, *The Auk*. Institutional access to digitized journals has transformed the rationale underlying professional ornithologists’ decisions whether or not to join a particular ornithological society. Although access to either print or digital versions of society publications is still important for many current or potential AOU members without institutional access, other society functions—such as networking and professional development opportunities for academic and nonacademic career paths, annual meetings, and funding for research—are more important today than in the past, particularly for ornithologists at earlier career stages. In recent years, members of the Student Affairs Committee and the Early Professionals Committee have organized various professional development and networking opportunities during the annual meetings to foster interactions across career stages for ornithologists aspiring to different career paths in ornithology, including workshops catered to students and early professionals, the annual Student–Mentor Lunch, the Early Professionals Social, and the Early Professionals Mini-Talk Symposium, among other events.

Monetary costs and membership fees are a pervasive barrier for many lapsed AOU members and ornithologists who have never joined the AOU. With a limited budget and many worthy options, ornithologists must make difficult decisions regarding professional society memberships. Membership dues are necessary for the AOU to function, however, which makes offering free membership impractical. During the most recent membership cycle, the AOU instated a new reduced-rate membership class for early professionals and expanded the emeritus/retired membership category, which will hopefully make mem-

bership more affordable and attractive for ornithologists at these career stages. Furthermore, the AOU has recently established consistent membership-based discounts for meeting registrations as another way to provide monetary benefits to membership.

Many survey respondents suggested the AOU should be more inclusive and supportive of underrepresented minorities in ornithology, including women and underrepresented ethnic or racial demographics. We agree that the AOU—and science more generally—should do more to promote diversity within ornithology and other fields. Recent annual meetings have included workshops geared toward the professional development of underrepresented demographics for a variety of career paths, and we hope that AOU members and the ornithological community continue to work toward this worthy goal. Some survey respondents view the AOU as a “stuffy” or “elitist” “good old boys club,” although these perspectives represented a small minority of the open-ended responses ([Supplementary Material Table S2](#)). This sentiment may stem in part from tiered membership classes appointed through nomination, such as elective members and fellows. Some respondents described these membership classes as “anachronisms” that are conspicuously old fashioned ([Supplementary Material Table S2](#)). These membership classes were established to recognize significant achievements and contributions to ornithology ([americanornithology.org/content/aou-special-membership-classes](http://americanornithology.org/content/aou-special-membership-classes)), yet the decision process underlying the nomination and election process has historically been opaque. The AOU committee responsible for the nomination of Fellows and Elective Members is actively working to improve transparency in how these special membership classes are attained to restore their initial purpose to honor important individual contributions to the AOU’s mission (S. Lanyon personal communication).

Communication and outreach were repeatedly raised as potential areas of improvement by survey respondents. Many active, lapsed, and nonmembers of the AOU were unaware of the benefits of society membership—such as access to BNA, online access to the journal, funding for student research and travel to meetings, platforms to network with other ornithologists, and opportunities for professional development—suggesting that the AOU was not adequately communicating these benefits to both members and nonmembers. Additionally, multiple individuals reported interest to volunteer and help with society

events or committees but stated they had never been taken up on their offer, highlighting the need for a clear and formalized process for populating committees. Fortunately, the AOU and COS recently generated a joint website that fully describes membership benefits, society happenings, and opportunities to become more involved with the society in a single, centralized location ([americanornithology.org](http://americanornithology.org)).

Many respondents suggested the AOU could do more to promote public outreach and dissemination of articles published in society journals and advances made by members of the society through article summaries for the general public and social media. Toward this end, the AOU has initiated a blog ([aoucospubsblog.org](http://aoucospubsblog.org)) that includes summaries of articles for the general public as well as active Twitter and Facebook pages to promote recent publications and achievements of the AOU community through social media. Ideally, these resources, in addition to the continued dissemination of the Ornithological Societies of North America (OSNA) newsletter ([osnabirds.org/newsletter.aspx](http://osnabirds.org/newsletter.aspx)), will keep ornithologists informed of ornithological news and society developments.

The AOU membership survey garnered numerous responses from a large cross-section of the ornithological community. The individual and collective patterns and perspectives revealed new insights regarding membership in the AOU and taxon-specific societies more broadly. Unedited survey responses and synthesized findings were passed on to AOU leadership; these survey results are being acutely considered in developing long-range plans for the society. We thank all individuals who chose to participate in the survey for their time and thoughtful responses and encourage those interested in the stewardship of the AOU to further explore the survey responses and contribute to a larger, ongoing discussion about the evolving role of professional ornithological societies.

## ACKNOWLEDGMENTS

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