

Assessment of the 6th North American Duck Symposium (2013): “Ecology and Conservation of North American Waterfowl”

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Abstract

Using web-based technology, we e-mailed a survey link to all 450 conferees of the 6th North American Duck Symposium (NADS 6), “Ecology and Conservation of North American Waterfowl” (ECNAW), seeking feedback from attendees in order to guide the organisation of future waterfowl and other wildlife symposia. Twelve questions were posed to evaluate the 2013 all-waterfowl symposium and a further 18 questions to assist planning future similar meetings. A total of 284 responses (63%) were received; the feedback suggested that NADS 6 was well organised, that it presented relevant information and that it was valuable to conferees. Perceptions of respondents on the structure of NADS 6 (*i.e.* whether presentation on all waterfowl should be included, or only on ducks) may not be representative of attendees of previous NADS meetings, as these focused on duck species. Nevertheless, respondents suggested that future symposia should continue on a 3-year rotation and retain its 4-day format with four morning plenary sessions, concurrent afternoon oral presentations and evening poster and mentee-mentor sessions. Respondents also recommended a maximum of three concurrent afternoon sessions and indicated that future symposia might continue to embrace geese and swans as well as ducks. The results suggest a need for officials of NADS to determine future meeting frameworks and venues. Web-based surveys provide a useful tool for conference evaluation and can promote effective design and relevance of future meetings and related events.

Key words: conference evaluation, ducks, NADS, survey, symposium, waterfowl.

Waterfowl (Anatidae: ducks, geese and swans) are important birds ecologically, environmentally and economically

(Baldassarre & Bolen 2006; Grado *et al.* 2011; Green & Elmberg 2014). They have been foci of continual research,

conservation and recreational endeavours in North America since the early 20th century (Bellrose 1976; Baldassarre & Bolen 2006). To help sustain waterfowl resources in North America, scientists and managers have convened conferences and symposia periodically to communicate contemporary knowledge about these birds and their habitats, particularly for species and populations of conservation concern (*e.g.* Canadian Wildlife Service 1969; Bookhout 1979; Boyd 1983; Whitman & Meredith 1987; Weller 1988; Smith *et al.* 1989; Fredrickson *et al.* 1990; Batt *et al.* 1992; Rusch *et al.* 1998). The inaugural North American Duck Symposium and Workshop (NADS 1) was convened in Baton Rouge, Louisiana, USA in 1997. This seminal event attracted professionals and students from North America and Europe to address the ecology and management of wild ducks, to synthesise acquired knowledge and to convey future needs and directions for research, management and conservation. An important objective of NADS from inception has been to attract students to present their research and promote their professionalism among colleagues. The founders of NADS believed that addressing research questions and management issues related to sustaining duck populations, maintaining the wildfowling tradition and advancing ecological studies, as well as the involvement of the next generation of students, were of paramount importance. Additionally, the founders considered that waterfowl ecologists had led major advances in avian ecology, analytical procedures and conservation, and they therefore sought to perpetuate and develop this legacy,

ultimately through the creation of NADS, Inc., a non-profit organisation established to facilitate future symposia and workshops.

Six NADS have been convened to date, in:

- 1) Baton Rouge, Louisiana, USA (1997);
- 2) Saskatoon, Saskatchewan, Canada (2000);
- 3) Sacramento, California, USA (2003);
- 4) Bismarck, North Dakota, USA (2006);
- 5) Toronto, Ontario, Canada (2009); and
- 6) Memphis, Tennessee, USA (2013).

Locations generally have rotated between the United States and Canada, among administrative waterfowl flyways, and generally in northern and southern locations of North America. Each NADS was organised under the direction of a scientific committee, which had discretion regarding the theme, content and venue. The Science Programme Committee for NADS 6 agreed the symposium would be expanded to include all taxa of waterfowl. Thus, NADS 6 was subtitled “Ecology and Conservation of North American Waterfowl” (ECNAW), with the North American Arctic Goose Conference and Workshop and the International Sea Duck Conference included as joint partners in NADS 6/ECNAW (<http://www.northamericanducksymposium.org>).

Feedback and evaluation are crucial for improving wildlife science and conservation programmes, and also for stakeholder engagement (Sholtes 1988; Jacobson 2012; Lauber *et al.* 2012). Although five NADS have been held previously, none were evaluated by surveying the conferees. Following NADS 6/ECNAW, its lead organisers (R.M. Kaminski and J.B. Davis) decided to conduct a post-symposium assessment of the meeting and asked the senior author (L.P. Laborde, Jr.), with

human-dimensions and survey-sampling skills, to develop a questionnaire. The primary objective was to poll participants on evaluative and planning criteria for future NADS and similar meetings. We believe results from this survey may also benefit wildlife and natural resources professionals in planning and implementing other large conferences and symposia.

Methods

The NADS 6/ECNAW post-symposium survey was developed to address 12 evaluative, 18 planning and three demographic-related questions. We evaluated conference sessions using an ordinal scale of 1 = “not valuable”, 2 = “marginally valuable”, 3 = “moderately valuable”, and 4 = “highly valuable”, and likewise used an ordinal scale of 1 = “strongly disagree”, 2 = “disagree”, 3 = “neither agree nor disagree”, 4 = “agree”, and 5 = “strongly agree” to rank agreement with statements addressing the symposium venue, scheduling, programme and costs (Dillman *et al.* 2009). Additionally, we invited open comments from conferees. Confirmed e-mail addresses were obtained from all 450 participants and the survey was distributed on 21 February 2013, three weeks after the symposium. Each conferee was asked to complete the survey, and each e-mail contained an embedded link to the survey using Qualtrics™ v. 12000 (Qualtrics Labs, Inc., Provo, Utah, USA; Vaske 2008). We contacted conferees up to three times at 5-day intervals to elicit their response and then thanked all respondents. An alternative response system – via electronic document, post or e-mail – was also provided (Vaske 2008). Responses were

limited to one per Internet Protocol (IP) address to minimise poll crashing (*i.e.* multiple responses per attendee; Dillman *et al.* 2009). Survey protocols ensured anonymity and confidentiality and were approved by the Louisiana State University Agriculture Center Institutional Review Board (Protocol Number HE 13-7). We collected responses through to 21 March 2013. We calculated the margin of error as the 95% confidence interval for the true population value of responses, following Dillman *et al.* (2009). Chi-square tests ($\alpha = 0.05$) were used to assess non-response bias and to test frequencies of response among demographic classes. Simple descriptive statistics are presented to analyse evaluative and planning questions.

Results

We received 284 (63%) responses to the survey. Based on this response rate and the population of 450 conferees, we report results within a margin of error of $\pm 4\%$, indicating that 19 out of 20 times (*i.e.* 95% of occasions) the true population value will be within 4 percentage points of our reported sample estimate. We used three demographic variables to evaluate non-response bias. Respondents were 85% male (15% female), but gender proportions of respondents did not differ significantly from non-respondents ($\chi^2_1 = 2.82$, $P = 0.093$, n.s.). Age distribution of respondents was ≤ 25 (11%), 26–35 (30%), 36–45 (24%), 46–55 (19%), 56–65 (13%), and > 65 years (3%), but ages of non-respondents were not available for comparison. By occupation, 23% of respondents were students, 15% were academicians and 62% were grouped

as professionals, including biologists, managers, administrators and retirees. A higher proportion of the academicians who attended the meeting responded to the survey (89%) than did students (62%) or professionals (57%; $\chi^2_2 = 11.96$, $P = 0.002$).

Respondents evaluated each of five conference sessions separately. The four daily plenary sessions of the symposium were attended by $\geq 88\%$ of respondents, and their ratings averaged 3.2–3.3 (s.d. = 1.1–1.3), indicating that their assessment of plenaries ranged from moderate to high value. One day before the grand opening of the symposium, there was a special session on the 2012 revision of the North American Waterfowl Management Plan; it was attended by 28% of the respondents who arrived early to the meeting and rated it, on average, moderately valuable (mean = 3.1, s.d. = 1.5). The remaining seven evaluative statements considered the relevancy of information

presented at the symposium, logistics, the host hotel and nearby venues. Mean ratings ranged from 3.3–4.4 (s.d. = 0.7–1.1), indicating their assessment ranged from moderate to strong agreement (Table 1).

Eighteen questions addressed respondents' preferences for future NADS, of which five specifically addressed the format of future symposia. For NADS 7 (scheduled to be held in Annapolis, Maryland, USA; February 2016), morning plenary and afternoon oral presentations, of the same length as NADS 6, were favoured by 63% and 77% of respondents respectively. During NADS 6, 6–7 concurrent sessions were held during three afternoons, but feedback indicated that this was too many, with 58% of respondents preferring only 2–3 concurrent sessions, and 32% suggesting 4–5 concurrent sessions. Only 2% wanted to continue the NADS 6 format of 6–7 sessions being held at the same time. Given options for convening

Table 1. Level of agreement with statements evaluating the North American Duck Symposium and Workshop 6, Ecology and Conservation of North American Waterfowl (2013), held at Memphis, Tennessee, USA.

Statement	Mean ^a	s.d.	<i>n</i>
Information presented was directly relevant to my work	4.4	0.7	281
The registration cost was a fair value	4.1	0.8	283
The symposium was well organised	4.2	0.9	280
Adequate time was allowed for breaks	4.2	0.8	280
Adequate time was devoted to issues of waterfowl management	4.0	0.8	281
The hotel cost was fair relative to amenities received	3.3	1.1	279
Service from the hotel staff was excellent	4.3	0.8	280

^aRated on a scale of 1 = strongly disagree, to 5 = strongly agree.

more frequent symposia, 66% of respondents preferred the current format of a 4-day symposium every three years. Given options of integrated plenary topics in a 4-day or two consecutive 2-day formats with different registration options and costs, 73% preferred the current format of 4 days with four different daily plenary sessions and a single registration fee. Cross-tabulation of the above five questions about the format of future symposia confirmed that $\geq 50\%$ of the three major occupational groups (*i.e.* students, academicians and professionals) ranked alternatives identically as described above.

Eleven statements addressing the symposium venue, scheduling, programme and costs were rated as described previously

(Table 2). Responses to eight statements ranged from neutral to agreeable (means = 3.1–4.0, s.d. = 0.7–1.1; Table 2), indicating that evenings were preferred for poster sessions, that the student mentee-mentor session should be continued, door prizes should be given to students and professionals during breaks between sessions, and that the cost of public transport between airports and hotels should be considered on choosing the hotel. Respondents neither agreed nor disagreed that breakfasts should be provided as part of registration costs, and there was no consensus that speakers and entertainment during lunch enhanced the symposium. Although nearly all respondents did not wish to continue the NADS 6 format of

Table 2. Level of agreement with statements for planning the North American Duck Symposium and Workshop 7 (scheduled to be held at Annapolis, Maryland, USA in February, 2016).

Statement	Mean ^a	s.d.	<i>n</i>
Professional and student presentations should be intermingled	4.0	0.9	280
Evening receptions were a good time for poster sessions	3.9	0.8	279
The Student Mentor-Mentee session should be continued	3.9	0.9	273
Door prizes for students should be continued	4.0	0.8	278
Door prizes should be availed to all conferees	3.1	1.0	279
Speakers and entertainment during lunch enhanced the programme	2.8	1.1	279
Breakfast should not be included to reduce registration costs	2.3	1.1	280
Alcoholic beverages should be included during evening receptions	3.4	1.1	281
Restaurants and amenities should be available within walking distance	4.3	0.7	281
The conference should be within a \$30 cab ride of an airport	3.7	0.9	279
Future symposiums should address “ducks only” and not all waterfowl	2.1	1.1	282

^aRated on a scale of 1 = strongly disagree, to 5 = strongly agree.

6–7 concurrent afternoon sessions, which was necessary to accommodate many presenters at the all-waterfowl symposium, 73% of respondents “strongly disagree” or “disagree” that future NADS should address ducks only.

Two questions addressed participation in NADS 7. A total of 172 respondents (65%) indicated they were “likely” or “very likely” to attend NADS 7, and 35 respondents (12%) volunteered to serve on an organising committee for NADS 7. One hundred and two respondents (36%) offered comments, of which 47 were congratulatory in nature. Twenty-nine comments indicated there were too many concurrent afternoon sessions, and 26 comments stated that the daily cost of the host hotel exceeded federal and some state expenses limits. For additional details, the complete survey and its summarised results and comments are available on the NADS 6/ECNAW website (<http://www.northamericanducksymposium.org/index.cfm?page=survey>) or from the senior author.

Discussion

We surveyed conferees of NADS 6/ECNAW, a symposium that embraced all waterfowl (*i.e.* ducks, geese and swans), unlike previous NADS which focused on ducks alone. The results and interpretations therefore reflect data from respondents attending this all-waterfowl conference and may not be the perception of attendees of NADS 1–5. Nonetheless, the results likely will be useful for planning future NADS and similar large meetings. Because the overall response rate was > 60%, with > 55% of conferees in each of the occupation classes responding,

respondents representing age classes from ≤ 25 to > 65 years, and there being no significant difference in the gender of responding and non-responding conferees, we believe that the responses were reasonably representative of those attending the conference. A representative sample from a majority of the surveyed population is considered more relevant than a high response rate for generalisations from survey results (Vaske 2008).

Survey results suggested that NADS 6/ECNAW was well organised, that it presented relevant content and was valuable to conferees. Responses and comments suggested that the host hotel rates should fall within federal and other expense guidelines, and that the location of the host hotel should be within walking distance of restaurants and other amenities. Respondents also suggested that future NADS should continue on a 3-year rotation and retain its single registration, 4-day format with 4 morning plenary sessions. There was an overwhelming preference to reduce the number of concurrent sessions in future NADS, likely because previous NADS featured non-concurrent sessions enabling possible holistic attendance of sessions by conferees. Nonetheless, > 70% of respondents expressed the preference that future symposia embrace all taxa of waterfowl. Because this opinion reflected perceptions only of respondents to the NADS 6/ECNAW survey, we conclude there is a need for the scientific committee of future NADS to work with NADS, Inc. to determine if subsequent NADS should focus on ducks or be inclusive of all waterfowl taxa. Indeed, there are major

trade-offs between holding an all-waterfowl symposium with the number of concurrent sessions in large meetings, during which conferees would be unable to attend all sessions, presenters (notably students) would not have an opportunity to address most conferees (if speaking in one of several concurrent sessions), and there may also be competition for attendance and fund-raising between NADS and other waterfowl, ornithological or wildlife conferences. Multiple concurrent sessions at all-waterfowl symposia may thus lessen opportunities for students to gain knowledge and receive expert feedback on their work, which has been identified as an important objective for NADS by NADS, Inc.

Access to web-based survey tools and to the conferees' e-mail addresses make electronic post-symposia surveys an inexpensive and relatively efficient method for evaluating meetings and planning future events. While we did not incur any direct costs to administer the survey, future surveyors may experience charges for development and use of a survey instrument. The NADS 6 post-symposia survey implied the relevance and value of symposia presentations, the frequency and possible format of future symposia, and general guidelines for the location and cost of host hotels. The survey was also able to identify volunteers for organising committees of the next symposium.

As far as we are aware, the survey of the NADS 6/ECNAW conferees was the first formal evaluation of an international waterfowl conference. We recommend using similar electronic survey methods for evaluating future NADS so that the data are

comparable and not confounded by survey methodology. Additionally, we recommend that other wildlife and natural resources conferences and symposia conduct similar post-meeting surveys. When combined with early programme and hotel planning, and with the involvement of experienced committee volunteers and fundraisers from previous symposia, post-conference surveys can promote the effective design and relevance of future events.

Acknowledgements

We are indebted to the public- and private-sector sponsors of NADS 6/ECNAW. We also thank the scientists and managers who composed the Scientific Program Committee and the Graduate Student Scholarship and Awards Committee, the graduate students at Mississippi State University, especially Justyn Foth who helped to ensure success of the symposium, the session chairs and moderators, and the staff of the Peabody Hotel, Memphis, Tennessee, USA. We thank all conferees of NADS/ECNAW, especially those who completed the post-symposia survey and enabled this evaluation. We thank A. Afton, D. Haukos, A.D. Fox and E.C. Rees for reviewing an earlier draft of this paper. Finally, we thank the School of Renewable Natural Resources at Louisiana State University for supporting design, implementation and evaluation of the survey, and the Forest and Wildlife Research Center (FWRC), Mississippi State University, for supporting J.B. Davis and R.M. Kaminski as symposia co-chairs. This manuscript has been approved for publication by the FWRC and the Department of Wildlife, Fisheries, and Aquaculture (WFA) at Mississippi

State University as FWRC/WFA publication WF379.

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Photograph: Flushing Mallard (and a likely male Mallard x American Black Duck hybrid) in an interspersed bottomland-hardwood and moist-soil wetland in the Mississippi Alluvial Valley of Mississippi, by James C. Kennedy.



Photograph: Prairie Pothole Region of South Dakota depicting the modification of wetland basins for agricultural production, by Tim McCabe/USDA Natural Resources Conservation Service.



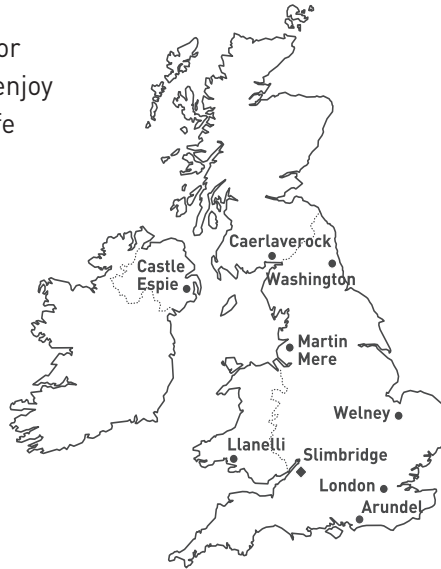
Photograph: Greater White-fronted and Lesser Snow Geese in a Louisiana rice field, by John K. Saichuk/Louisiana State University AgCenter.

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