Wildlife Education: changing in the wind

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Survey of programs

- **United States**
  - UnivSource
    - [www.univsource.com/region.htm](http://www.univsource.com/region.htm)

- **Canada**
  - Association of Universities and Colleges of Canada
    - [www.aucc.ca/index_e.html](http://www.aucc.ca/index_e.html)
  - Eco Canada
    - [www.eco.ca/Portal/default.aspx](http://www.eco.ca/Portal/default.aspx)
Survey response

- United States
  - 3,413 University & College websites
  - 526 Programs (excl BA)
    - 61 traditional members of North American University Fish and Wildlife Programs (NAUFWP)
    - 40 Cooperative Fish and Wildlife Unit programs
- Canada
  - 77 Universities; 120 Colleges listed AUCC and EcoCanada
  - 92 Programs
    - 50 University
    - 42 Colleges
    - None NAUFWP
Survey Questionnaire

• We contacted 526 (US) programs by email or telephone follow-up

• Asked
  – What programs & degrees offered
  – Number of courses and faculty by disciplines
  – Average enrollment & trend
  – Percent hands-on classes
  – Require or meet TWS certification
Survey results

- TWS had listed only 101
- We documented 739 programs at 442 Colleges & Universities in US.
  - excluded BA and links only to field station programs

- Canadian Universities
  - 65% offered wildlife related courses
  - but only 16% of those offering courses had programs that led to wildlife related degrees
Programs by TWS Section

Northwest (n=33)
Southwest (n=31)
West (n=20)
Central Mt & Plns (n=39)
North Central (n=81)
Northeast (n=87)
Southeast (n=113)
Canada Coll & Univ Progs (n=197)

Wallace and Baydack 2009

(χ² = 128.2; 14 df; P < 0.000)
TWS certification

• Of the 442 US programs we contacted, only ~10% require courses that meet TWS certification for graduation.
• Based on responses, we estimate that another 25% offer classes that could meet certification.
• In Canada, all 16 Universities with programs could meet, but none require, courses sufficient for certification.

Wallace and Baydack 2009
Enrollment trends

- Nearly 24% of traditional (NAUFWP) programs reported declining enrollment; only 13% percent of non-traditional programs reported declines.

- However, this reported difference was not significant.

\[ \chi^2 = 2.592, 2 \text{ df}, P = 0.274 \]
Hands-on classes

- Increasing enrollment was related to percent of hands-on courses in the curriculum.

- Size of programs (number of students enrolled) was not well correlated ($r = -0.067$) with percent of hands-on curricula reported.

Wallace and Baydack 2009
Hands-on classes (%)

- Traditional programs (NAUFWP members) had lower percent hands-on curricula (49.0 ± 22.2) than did non-NAUFWP programs (67.5 ± 26.2).

Student’s t = -3.5509, 130 df, P = 0.0005

Wallace and Baydack 2009
Enrollment trends

- Qualitative data
- ‘Commodity’ programs declining
- 90’s Shift to Natural Resources
- Rapid growth Conservation programs

Generalized trends

- Forestry
- Wildlife
- Natural Resources
- Fisheries
- Range
- Conservation

Year

Curricula trends

- Increasing General Education requirements
- Total degree credit hour caps
- Increased emphasis on research $$
  - Concurrent devaluation of undergraduate teaching in P&T decisions
- Reduced field experience
  - Costs: travel, faculty time, field stations
Summary

• More programs - increased competition
  – ‘Wildlife’ classes offered by diverse programs
  – Increase/shift to conservation programs

• Reduction in hands-on skill building field classes attractive to students and demanded by employers
  – New business model of higher education
  – Demands on faculty

• Changing public – Changing enrollments
  – Motives for today’s more urban undergraduates
    • Driven by television? Do we know?
‘Blowing in the wind’
Acknowledgments

TWS Student chapters

Only 102 programs
~25% have student chapters
Connecting students to TWS