Broader Impacts and the Museum

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Outline: Broader Impacts and the Museum

- My background and an anecdote, or two
- Why should we care?
- Case example: ZOO 6927: “Broader Impacts” graduate seminar, Winter 2006
- Museum as a resource and partner
- Recommendations and caveats
- Further contacts
My background

• Paleontologist and geologist trained at museum in 1970’s no culture of broader impacts
• At UF and FLMNH since 1977
• 1996-2004; Associate Director of Exhibits and Public Programs in charge of developing the new UF museum
• Have had three NSF broader impact exhibit supplements; served on NSF panels
• Taught Broader Impact course
An anecdote, or two

- The 11th hour request
- “End of grant and we are out of money” request
Why should we care?--Because

• NSF and Congress care ($)
• No more “Golden Fleece” awards
• Its the right thing to do for society
• It might lead you to new research questions
• It will help your students (and you) with the current culture of science and society
It's the right thing to do for society.
It might lead you to new research questions

“Skeletons in Our Closet” exhibit, ca. 2000
ZOO 6927: “Broader Impacts of Natural Science on Society”

- Winter 2006
- Graduate seminar: 6 students
- NSF “landscape”
- Mostly focused on activities outside the Ivory Tower
  - GK-12—SPICE
  - Citizen scientist initiative
  - Museum as a venue
  - Formal evaluation
- Class project
Class project: front-end evaluation of proposed shark exhibit

- Learned about evaluation
- Developed and tested a visitor survey
- Administered IRB-approved survey to 104 museum visitors
- Compiled results for NSF proposal
- Wrote article*

Epilogue: NSF funded Megalodon exhibit

- CRPA program (supplement to existing shark research)
- Impact: more than 100,000 visitors during 6-month venue; will travel to other museums and impact more visitors (and generate revenue)
FLMNH as a resource & partner

- Academic unit within UF
- Within university (teaching & research)
- Stewards of 25 million+ specimens and artifacts
- Outside the Ivory Tower: Public outreach
  - Exhibits (“real” and cyberexhibits)
  - Public programs (Science Sunday, Butterfly festival)
  - School programs (e.g., SPICE)
  - State-wide activities (talks to clubs)
  - Web site to communicate and promote activities
- PR and marketing division
• UF has 650 sub-sites (e.g., flmnh.ufl.edu)
• Most visited sites
  – 1. ifas.ufl.edu (16 %)
  – 2. flmnh.ufl.edu (7 %)
  – 3. ufl.edu (5 %)
  – 4. clas.ufl.edu (4 %)
  – 5. plaza.ufl.edu (3 %)

• Total visitation flmnh.ufl.edu
  – 2006: 16,179,873
  – 2005: 12,289,929
  – 2004: 10,328,271
Fossil horses in cyberspace

- Created in 1997
- Hundreds of thousand “visitors”
- Top on search engines
- Used worldwide for:
  - Science fair projects
  - Textbooks
  - Course term papers
  - Class lectures
  - Ammunition for/against evolution
Areas of outreach interest

- Anthropology, archaeology, cultural studies
- Earth and environmental sciences
- Life sciences: botany, zoology, entomology, ecology, evolution
- Genetics, development, and molecular biology
- Wildlife, forestry, conservation
- Bioinformatics
- Nanoscience
- Astronomy & physics
- Forensic sciences
- Others (ask)
Potential for Cross-college collaborations with FLMNH and

- CLAS
- IFAS
- Engineering
- Medical and Veterinary colleges
- Education, Journalism
- Genetics, Brain, Emerging Pathogens institutes
Recommendations & Caveats

• Consider the museum as a colleague, rather than a service provider
• Begin collaboration early
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• Consider the museum as a colleague, rather than a service provider
• Begin collaboration early
• Some broader impact programs are expensive, others are less so—choose accordingly
• Consider 5-10% of your budget for Broader Impact activities, or articulate a strategy for supplements to augment these programs
• Have your students take a Broader Impact course
Suggestions for “content delivery” with FLMNH as partner

• Small exhibit; could then be used elsewhere (e.g., building lobby)
• Cyberexhibit
• Public program series
• Summer kids classes
• Etc.
• Combinations of above activities

Benefits of Museum: public venue with advertizing
Other Broader Impact activities (with/without museum)

- Departmental/laboratory open house or “behind the scenes”
- REUs and mentoring activities
- Cyberexhibit
- Citizen scientist, volunteer participation
- Co-sponsored large public lecture(s)
- Talks to clubs or civic organizations (e.g., Rotary)
- Etc.
Contacts

• Douglas S. Jones, Director (dsjones@flmnh.ufl.edu)

• Douglas Noble, Exhibits and Public Programs (dnoble@flmnh.ufl.edu)

• Bruce J. MacFadden, Curator and UFRF Professor (bmacfadd@flmnh.ufl.edu)

• FLMNH faculty with similar interests