President's Message: Bruce Schmidt

We are now well into the year 2005 and OFWIM is up and running! Since the last newsletter and the holidays the ExCom has been busy, with results detailed in this newsletter.

The highest priority so far has been to organize the 2005 meeting. As described in this newsletter, the meeting has been scheduled for October 18-20 in Tallahassee, Florida with the theme Protecting Fish and Wildlife Through Technology: Integration of Data, Devices and Systems. Beth Stys, President Elect and chair of the Meeting Planning Committee, is organizing a meeting that should be both informative and enjoyable. Facility costs this year are quite reasonable, and the location will give attendees a chance to see the “real” Florida, away from the tourists and commercialism. Beth and her crew will put together some interesting and unique field trip options for the day before the meeting, so plan your travel accordingly!

The ExCom also initiated a new approach to selecting a location for the annual meeting by starting the search a full year ahead of normal! After taking suggestions for potential locations for the 2006 meeting at the meeting in San Diego, we asked two OFWIM members to develop initial proposals with rough cost estimates so that we can select a location well before the Tallahassee meeting. Aliya Erceiawn of The Nature Conservancy is checking out San Antonio, TX and Rick Lorenzen of Minnesota DNR is working on Minneapolis/St. Paul, MN. Expect to see details on these two possibilities in the next newsletter!

Over the past month we have been conducting a vote to select the new logo for OFWIM. I hope everyone took the opportunity to review the art work and cast a vote. The election is now over, and the winner is revealed with this newsletter! I'd like to express thanks to all the people who contributed their ideas and art work to this contest, and particularly to the two people who provided the art for the final three options. No matter the final selection, we were bound to have a memorable logo to identify our organization!

The OFWIM committees are also making good progress. The Membership Committee is conducting a membership drive for 2005. The Technology Trends committee has organized its members to develop reports on new technological approaches that will be published regularly in the newsletter. The Data Standards committee has initiated a survey of data standards used in fish and wildlife related agencies nationwide. The Awards and Nominations Committee has established sub committees to develop awards, nominate people for those awards, and to organize a slate of candidates for election at the next meeting. The Communications Committee has sent a variety of announcements to the OFWIM membership, and of course, produced this newsletter!

And, as already mentioned, the Meeting Planning Committee is busy putting the 2005 meeting together. In my opinion, the committees are off to a great start this year!

Following the last meeting the ExCom conducted a survey of OFWIM members to identify the level of satisfaction with our meetings and our organization. That survey was completed and a report of the findings is presented in this newsletter.

As you can see, many people have been very busy moving OFWIM forward! We plan to keep that momentum throughout the year, and cap it off with an excellent meeting in Tallahassee. Of course, we can always use more people pitching in! If any of the activities mentioned above interest you, or if you have other ideas for OFWIM, please jump right in! All committees and committee chairs are identified on our website, so just contact them to join. They will be glad to have you!
New OFWIM Logo!

The polls have closed, and OFWIM members selected a clear winner in the contest for a new logo! Despite the lack of a paper trail, the electronic voting went smoothly, and with 65% of the vote, there will not be any need for a recount!

The entry was developed by OFWIM member Robin Carlson, who works for the Pacific States Marine Fisheries Commission in California. Robin developed two of the final three options in the election. We owe Robin many thanks for her efforts to help us find a new identity!

We received a valuable suggestion following the voting that the ExCom is now pursing. The suggestion was to remove the background of 0s and 1s. The ExCom considered that suggestion because at smaller size, the logo looks "muddy" since the background of 0s and 1s becomes indistinct as they shrink. Our proposed solution to this problem is to have two versions of the logo. A small version for use for things like letterhead will not include the background. A large version will include the background. This larger version would be ideal for use on things like T-shirts or ball caps. Look for more on this at the annual meeting!

Thanks to all of the members who voted and helped us select this excellent new logo!

- Bruce Schmidt, President

Survey Results Help Guide Next Annual Meeting

Following last year's OFWIM meeting in San Diego, the OFWIM Executive Committee conducted two surveys of members to gain insight into how to improve future OFWIM meetings. The results from these surveys and recommendations for future meetings are discussed in a report that has just been posted on the OFWIM website at http://www.ofwim.org/docs/2005/OFWIM_2004Meeting_Survey_Final.pdf.

The survey project included a questionnaire for those who attended the San Diego meeting and a second questionnaire for those who did not attend. The survey of attendees provided insight on what went well and what needed improvement at the 2004 meeting, while the second survey provided information on what prevented attendance. Both helped assess opinions about OFWIM in general.

Opinions about the 2004 meeting, OFWIM meetings in general, and OFWIM as an organization were quite supportive. On a five-point scale, no question had a mean score less than 3, which represented "neutral". However, while most questions scored higher, the questions in the neutral range did provide direction for some things that we could do better.

In summary, the following highlights emerged from the survey:

- Members are highly supportive of OFWIM as an organization.
- Attendees enjoyed the 2004 meeting location, but the cost precluded some attendance.
- Keep travel and meeting costs down to facilitate travel approval and attendance.
- A luxury destination is not a prime factor for OFWIM meetings.
- The Hacker's Ball is a highlight of the annual meeting.
- Increase the amount of "free" time for networking.
- Work to improve the business meeting.
- Work to improve the workshops.
- Work to speed up the raffle.
- Exercise caution regarding development of a contact list of OFWIM members.

The ExCom is taking these suggestions seriously, and is using them in planning the upcoming meeting in Tallahassee. We sincerely appreciate the input from those members who took the time to complete the survey, and we hope to have even better meetings in the future as a result!

- Bruce Schmidt, President
Wireless Technologies: Wi-Fi (802.11 b/a/g) and Bluetooth

By Vijay Hanumolu, OFWIM Technology Trends Committee

In today's Hi-Tech world not everyone's life is entangled with wires as shown. But we still deal with a lot of them around us in our day-to-day life, should it be connecting to the Internet/LAN, printer/scanner, handheld device, GPS receiver, iPod/MP3 player, etc. Whatever the reason, we have lots of wires running around the place. In recent years, there has been tremendous development in the field of wireless technology. This article is an attempt to provide a basic introduction to the two most commonly known and used wireless technologies: Wi-Fi and Bluetooth. The more prevalent these technologies become, the more misunderstanding persists. Often these are mistakenly used in the context of wireless communication. Hopefully this article will help to clear up some of those misconceptions.

What exactly is a Wi-Fi?

The term Wi-Fi stands for Wireless Fidelity and is used to define any device that uses wireless technology based on the IEEE 802.11 specification, the wireless protocols 802.11a, 802.11b, and 802.11g. The term Wi-Fi is derived from term Hi-Fi, which is used in the musical world. The Wi-Fi Alliance (http://www.wi-fi.org) is the body responsible for promoting the term and its association with various technology standards.

Then, what is Bluetooth?

It's a wireless technology oriented toward Wireless Personal Area Networks (WPAN). Bluetooth technology comes under the IEEE 802.15.1 specification. Its major characteristics include low power, short range, and medium transmission speed. Because of its low power consumption, it is an ideal candidate for use with devices like PDA's, MP3 players, and mobile phones, which often run short on power. The Bluetooth Special Interest group (SIG) (http://www.bluetooth.com), comprising nearly 2000 member companies, is responsible for publishing the Bluetooth specifications.

What's the difference between Wi-Fi and Bluetooth?

Even though both are wireless based technologies and work in the same frequency band (to the most part, Wi-Fi's 802.11b/g and Bluetooth work in 2.4GHz frequency range, where as Wi-Fi's 802.11a works in 5GHz frequency range), they are not the same and hence not interoperable. For example, one cannot use a Bluetooth-only enabled device to connect to a server using Wi-Fi. There are many subtle differences between the two technologies. One of the major differences is speed of data communication. Wi-Fi devices perform data transfer at a speed of 11-54Mbps depending on the Wi-Fi technology being used (802.11 b/a/g), whereas Bluetooth devices perform data transfer at a speed of 1-2Mbps. Another major difference between these two technologies is coverage distance. Wi-Fi devices can span anywhere between 75-250ft, whereas Bluetooth devices are designed for shorter distances – up to 30ft.

Wi-Fi technology boasts faster data transfer speeds, can connect numerous Wi-Fi enabled devices, and larger coverage range, making it a good alternative for Ethernet (IEEE 802.3) based systems. Bluetooth requires less power and is therefore more often used in small appliances (up to 8 devices can be connected simultaneously).

Fish and Wildlife Information Management Uses

These two technologies can help solve problems that are specific to Fish and Wildlife Information Management. Many of the advantages to Bluetooth and Wi-Fi technologies come from use of data collection devices in the field. For example, Bluetooth can be used to connect handheld or laptop computers to a GPS receiver (http://reviews.cnet.com/4520-6460_7-5135545-1.html). This allows the receiver to be placed in a location with better reception than you are able to stand (such as on top of a pole in locations with poor reception, or on the dashboard of a vehicle). Because no wires are required, this also allows the computer to be placed in a weatherproof container. Bluetooth can also be used to connect handheld or laptop computers to a Bluetooth-enabled cellular phone and provide internet access wherever cell phone reception is available. This can be useful for accessing GIS layers in the field that are located on a server connected to the internet (see our upcoming article on handheld computer use in the field for more details).

The major advantage to Wi-Fi is to provide a high-speed wireless connection to the internet or local network without the use of a cellular phone. While Wi-Fi is becoming more widespread, it is currently most available in urban areas and office locations. Therefore, this technology may be useful when working in urban parks and projects, but currently has limited use for internet connection in the field.

Author: Vijay Hanumolu <hanumolu@vt.edu>, Conservation Management Institute (CMI), Virginia Tech. Member of OFWIM Technology Trends committee

Reviewed by: Scott Anderson - OFWIM Technology Trends committee Chair and Kathy Graham - OFWIM Technology Trends committee Vice Chair
Procedures for the Meta Analysis of Fish Data Studies

By Paul Johnson

Abstract
This article references and briefly describes common methods used for combining the results of several fish data studies. The technique is known as 'meta-analysis'. I have written a set of programs that can be used to perform such analyses. The programs are available for download at http://pages.prodigy.net/johnsonp12/mega.html. Individual .pdf files describe input and output variables. The .pdf files detail formulae and the algorithms used for the analyses. The procedures are: a) Holm's for multiple testing, b) Liptak-Stouffer's, and c) Fisher's for combining results from various studies.

Procedure
Manly (2001) describes Holm's, Liptak-Stouffer's and Fisher's methods. The author illustrates using a data set of five morphological characters measured for 47 species of Brazilian fish. Lu and Fang (2003) describe the methods for contingency table meta analysis. These are Peto's, Fleiss' and DerSimonian-Laird's methods. The procedures briefly described are:

1. Holm's Method for Multiple Testing: This procedure uses an algorithm for multiple testing. The overall level of significance, α, is input. The number of multiple tests to be carried out, m, is input. The p-values, p_i, for the m tests are input. The program sorts the p-values into ascending order: p_1, p_2, ..., p_m. If m/(m + i - 1) this indicates a significant result (significance = 'yes'). First test p_1, then p_2, then ... and continue until an insignificant result is obtained (significance = 'no'). Once an insignificant result is obtained all of the remaining tests are also insignificant. Otherwise the result is significant.

2. Liptak-Stouffer's Method for Meta-Analysis: This procedure uses an algorithm for multiple testing to calculate Liptak-Stouffer statistic, S. The number of studies that have been carried out, m, is input. The p-values and weights for these m studies are input. If the null hypothesis is true for all of these studies, then S follows a standard normal distribution. The weights may be based upon the sample sizes used in the study, more recent studies may be given the highest weights, or other criteria may be used. The weights are often chosen to sum to 1, but the program can make the necessary adjustment so that weights can be included. If the studies are to be weighted equally then weights of 1, 1, ..., 1 should be used (or equally as well the adjusted weights 1/m, 1/m, ..., 1/m). Manly (2001) illustrates using a data set comparing the biomass of mussels at five paired oiled and un-oiled control sites on Prince William Sound, Alaska from part of the oil spill study of the Exxon Valdez.

3. Fisher's Method for Combining P-values: This procedure uses an algorithm to combine p-values, the p_i, from independent data [i = 1, ..., m]. A test statistic, S, is calculated and its value compared to the relevant percentiles of a chi square distribution.

4. Contingency Table Meta Analysis
The procedures are the Peto method, Fleiss method and the DerSimonian-Laird method. The Peto method is a modification of the Mantel-Haenszel method (see Lu and Fang, 2003). The method has been extensively used. The Fleiss method is used when data to complete a 2x2 table is not available. These two methods are based on the fixed-effect model. The DerSimonian-Laird method is based on the random-effects model, when the studies included in meta-analysis lack homogeneity [see Lu and Fang (2003) for more detail]. The homogeneity test statistics for the tree methods, Q_k, Q_o, and Q_k, are calculated and compared to chi-squared distributions with (k - 1) degrees of freedom. The three methods test the null hypothesis that given k studies the odds ratios of each study share a common odds ratio.

The null hypothesis is H_0: OR_1 = OR_2 = ... = OR_k versus the alternative H_1: at least two ORs are different. The input data for all 3 methods consists of k studies of 4 cells. One example could consist of cells for the i^th study being the observed frequencies:

\[ a_i = \text{number of fish exposed to pollution/pollutant that contract disease or illness.} \]

\[ b_i = \text{number of fish not exposed to pollutant that contract disease or illness.} \]

\[ m_{ij} = \text{number of fish exposed to pollution/pollutant.} \]

\[ m_{2i} = \text{number of fish not exposed to pollution/pollutant.} \]

Arkooch et al. (1998) show that exposure to chlorinated hydrocarbons and aromatic hydrocarbons can lead to increased disease susceptibility in juvenile salmon. The authors comment that exposure of these pollutants increases the probability of disease-related impact on fish populations.

References


For more information: Paul Johnson can be reached at: E-Mail: Pjohnson@biostatsoftware.com  Webpage: http://www.biostatsoftware.com
Systematic Conservation Planning and Reserve Selection Algorithms
by Robert Vanderkam

The cornerstone of most conservation strategies today is the use of biodiversity reserves, and the selection of reserves is moving from an ad hoc, expert based practice to a transparent and accountable one. This article looks briefly at how IMIT is used today to identify sets of reserves that accomplish conservation goals with maximum efficiency.

Reserve selection methods in North America have moved through stages, beginning with the protection of natural monuments of outstanding beauty 100 years ago, to a wilderness ethic that was responding to increasing conversion of natural lands, to science-based views that led to the recognition of biological attributes as indicators of valuable places. The 1960’s saw the development of regional networks of reserves in response to massive loss of habitats in developing countries, but guiding principals, like SLOSS, derived from grand theories such as Island Biogeography, were not effective in complex ecological realities.

The Society for Conservation Biology was founded in 1985 with goals of identifying the where and what for effective conservation, but especially to follow systematic and repeatable processes. The 1970’s saw the beginning of the trend from intuitive to technical when Ratcliffe (see Sarkar, 2004) first suggested ordering nominated sites using attributes agreed on by all stakeholders. Recently, Margules and Pressey (2000) presented an overview of systematic conservation planning, describing step by step goals and methods, and stressing explicitness and collaboration as a way of overcoming the “experts vs. politicians” approach that had led to most reserves being located in remote areas.

Today, IMIT is used to identify sets of reserves that accomplish conservation goals with maximum efficiency. Situations are modelled using clearly stated goals and assumptions, and selection is based on prioritisation of locations based on biodiversity surrogate (feature) evaluation. When the new approaches (early scoring methods) were first applied, it was immediately apparent that selecting multiple sites based on particular features caused duplication of some of those features in the network. Although it is not a waste to represent features more than once in a set of reserves, it may be a more effective, or at least efficient, use of limited funds to find the same number of sites that can cover more features (often species).

This is easily done by removing the species from the analysis that are covered by the first selection and selecting the next sites based only on those species not yet covered. Many more species are usually covered in the same number of sites this way, and, conversely, it takes many fewer sites to cover all species.

This principle of complementarity, so called because the sites complement each other, became the logical foundation of a number of software packages developed in the last 15 years. These packages, such as C-Plan, WorldMap, Sites, ResNet, and others, analyse a digital model of the conservation situation. They evaluate sites based on specified attributes, sort them, select one, remove the species in that site from further consideration, then repeat the process until the goal is accomplished. This goal is either to find the most species that can be found in a certain number of sites, or to find the minimum number of sites that can include one occurrence of every desired species. The former model is known as the maximal covering problem and the latter as the set covering problem, two variations of what are called integer programs (IP) in a field of mathematics called Operations Research (OR). Underhill (1994) pointed out that when IP’s are solved using the logical, iterative (i.e., heuristic) algorithm described above, the solution may not be the optimal one, in that the set might not find the most species or the smallest set. He noted that these models had been well studied for decades and special algorithms exist for solving them optimally.

Since 1994, a number of studies have compared the solutions from the optimal and heuristic algorithms (e.g., Rodrigues and Gaston, 2002). It is well understood that heuristic algorithms 1) might not find optimal solutions, but 2) "often" come "close", but 3) it can’t be predicted how often or how close. (An entirely different issue is if optimal solutions are important, but that probably depends on how sub-optimal the solution is.) As for the optimal algorithms, it is often said that they 1) are not capable of providing solutions to problems with large datasets in a reasonable time (e.g., this lifetime), 2) are difficult to program, and 3) do not provide alternative solutions in cases where flexibility is needed. Optimal algorithms are more robust and thorough in order to guarantee the optimal solution. Some do this by checking every possible solution and this gave rise to the statement that solutions can take years for "larger" datasets (e.g., thousands of sites). However, some use more sophisticated tools and are much faster. This past year, I've been writing a Masters thesis at Carleton University in Ottawa that tests some of these statements. I used both types of algorithm on a number of datasets from existing reserve selection research projects in order to see which was faster, how close to optimal the heuristic results were, and how flexible the optimal outputs were in a gap analysis.

The optimal solver (ILOG OPL Suite) gave a solution in less time than the heuristic solver (C-Plan) (Figure 1). By definition, heuristic algorithms are faster than optimal ones by being simpler, but in this case it seems other factors, such as the complexity of the C-Plan attribute and optimal algorithm methods were more important. Regarding optimality, the heuristic solver provided optimal solutions or came close most of the time (Figure 2) but not every time. And the optimal solver provided numerous optimal solutions (the heuristic solver provided only one) that allowed me to find one that had more overlap than the heuristic with the existing protected areas in the region (Figure 3).

So, just as with biodiversity conservation, every situation is different and there are many variables that must be considered before making statements about the speed, optimality, flexibility, or accountability of optimal vs. heuristic algorithms. It may be useful to have an optimal solver designed and packaged for use in reserve planning so that at least the solutions from heuristics that are wildly sub-optimal can be identified.
Figure 2: Optimality. Each group has 1 bar (purple) for optimal solution size and 4 bars showing how close C-Plan came to optimal using 4 attributes for prioritizing sites.

Figure 3: Gap analysis optimality. The bar pairs for each group show the amount of overlap (purple portion) the nominal reserve set had with existing reserves. More overlap means less new reserves are needed. The top bar is the optimal bar in each pair.

References
(see http://plato.stanford.edu/ cgi-bin/ encyclopedia/archinfo.ca/entry= conservation-biology for updates on this reference)

Robert Vanderkam can be contacted at robert.vanderkam@ec.gc.ca Canadian Wildlife Service, Environment Canada
OIFWIM 2005 Annual Meeting: Location Information

Ramada Inn and Conference Center, Tallahassee, Florida

Room rate: $75.00 (single and double)
Rates are also valid three days prior to and three days after meeting dates.
Room block held until September 23, 2005. Rates are still good after, but no guarantee on room availability.

Perks for staying at Ramada Inn:
Room rate includes (1) breakfast coupon per guestroom (hot and cold breakfast buffet)
20% discount for all meals not provided by conference (at the on-site restaurant –Monroe Street Grille)
Free shuttle to and from Tallahassee Regional Airport
Free Hotel Shuttle within a 5 mile radius of hotel 7 am – 11 pm daily
Free use of Fitness Center and Wet & Dry Sauna, and Jacuzzi

Meeting Registration Fee will include:
Welcome Social – Monday, October 17 (light hors d’oeuvres and cash bar)
Hacker’s Ball – Tuesday, October 18 (hot and cold hors d’oeuvres and cash bar)
Lunch/Business Meeting – Wednesday, October 19
Banquet – Wednesday, October 19

DRAFT Agenda for 2005 Annual Meeting: Oct 17-20

Monday, October 17, 2005
8am-5pm  Field trips
1pm-5pm  Registration
7pm-9pm  Welcome social

Tuesday, October 18, 2005
8am-12pm  Registration
9am-12pm  Plenary Session
1pm-5pm  Technical Sessions
6pm-9pm  Hacker’s Ball

Wednesday, October 19, 2005
8am - 11:30am  Technical Sessions
11:30am - 2:30pm  Lunch/Business Meeting
3:00pm - 5:00pm  Technical Sessions
6pm - 9pm  Banquet

Thursday, October 20, 2005
8am-12pm  Technical Sessions
12pm  Adjourn

Possible Half-day Field Trips
Wakulla Springs State Park
St. Marks National Wildlife Refuge
Apalachicola National Forest/ Leon Sinks Geological Area
Apalachicola National Forest
Leon Sinks Geological Area
Tall Timbers Research Station—Wade Tract

Possible Full-day Field Trips
Florida Caverns State Park/Apalachicola Bluffs and Ravines Preserve
Florida Caverns State Park
Apalachicola Bluffs and Ravines Preserve
Wacissa River Canoe Trail
St. George Island State Park

2005 OFWIM Student Scholarship Awards

OIFWIM will award two student scholarships this year to the annual meeting in Tallahassee, Florida, October 17 - 21, 2005. The awards will be in the form of paid registration and travel costs up to $500 each.

The successful candidates will be a graduate student working toward a Master’s or PhD who are interested in professional involvement in the field of wildlife-related information management and/or Geographic Information Systems. Candidates will be judged based on academic excellence, professional activities and financial need. The deadline for applications is August 12, 2005. All applicants will be notified by August 19, 2005.

Visit the web site at http://www.ofwim.org/docs/2005/Student_Scholarship_2005.html to download the scholarship application and guidelines.
2005 Call for Nominations

This year, we will be electing individuals to fill two offices. Holding an office is one of the most rewarding ways to participate in OFWIM. It is your opportunity to truly make a difference to “your” organization and the field of fish and wildlife information management. This is the year to step up to the plate!

At this time we are calling for nominations for the positions of President-Elect and Member-At-Large. Descriptions of these positions and their duties can be found on the OFWIM website [www.ofwim.org](http://www.ofwim.org).

You may nominate yourself or someone else. Please e-mail your nominations (or questions about the positions) to Stan Allen (stan.allen@psmfc.org) or Don Schrupp (howris@llamar.colostate.edu) of the Awards and Nominations Committee. Nominations will be accepted through June 30, but earlier is better.

Elections will conclude at the OFWIM business meeting in Florida. Please note: elections will be based on candidates already listed on the official ballot. Nominations will not be taken from the floor, because members unable to attend the business meeting will be voting by email. Nominate early!

OFWIM Data Standards Survey Now Online

The Organization of Fish and Wildlife Information Managers (OFWIM) Data Standards Committee has just launched a short Data Standards Survey at [http://www.ofwim.org/survey](http://www.ofwim.org/survey).

Please fill it out to best define the data standards you use in your organization. Please don’t assume someone else from your agency will respond! We need to capture as much information as possible, even within a single agency. Data standards for data collection, data entry/information compilation, data management, data delivery, software, reference/library, and metadata are all of interest.

The committee is seeking your input regarding various fish and wildlife related data standards currently in place or under development in your agency, division, department, or program. Our purpose is to develop a ‘living’ online resource that describes the data standards used in the wide variety of agencies, departments and programs across North America. By openly displaying the similarities and differences in standards, we hope to support development of more consistent approaches within and between organizations and to serve as a resource for agencies contemplating the need to establish their own standards.

The purpose of the Data Standards Committee is specifically to develop and maintain a data standards online resource for fish and wildlife database and information system developers. To this end, we have been working on a series of work steps, including definition of needs, gathering available information on current standards and compiling current examples. This survey, based on a previous OFWIM survey, is one avenue to do this.

The theme of the 2005 OFWIM conference "Protecting Fish and Wildlife Through Technology: Integration of Data, Devices and Systems" lies directly into the need for data standards and collaboration between agencies and professionals across all boundaries. Compiled responses will be used to help us define the online resource, and will be presented at the annual meeting in Tallahassee, FL in October. See details at [http://www.ofwim.org/meetings/2005/OFWIM2K5.htm](http://www.ofwim.org/meetings/2005/OFWIM2K5.htm).

The survey will be open until May 1, 2005. We appreciate your contribution to this effort, and hope that it will be a benefit to many when it is complete. Please contact me [bonni@vt.edu](mailto:bonni@vt.edu) if you have any questions.

Thank you!

Lila Borge Wills, Chair
OFWIM Data Standards Committee
[www.ofwim.org](http://www.ofwim.org)
Welcome New Members to OFWIM: A Letter from the President

Organization of Fish and Wildlife Information Managers
Pacific States Marine Fisheries Commission
205 SE Spokane St., Suite 100
Portland, OR 97202
(503) 505-3113
bruce_schmidt@psmfc.org

Dear OFWIM Member:

Welcome to OFWIM for 2005! By joining or renewing membership in OFWIM, you are joining the only professional organization dedicated to pursuing the interests of information managers whose efforts focus on fish and wildlife resource issues. As a member of OFWIM, you will have access to the knowledge and experience of other information managers like yourself across the U.S. and the world. We have much to learn from each other.

This year, OFWIM is focused on increasing its visibility as a professional organization and developing a broader, more stable membership base. Previously, many members joined only when attending meetings. We recently changed membership to a calendar year schedule and modified the "Organizational Membership" category so that it now includes six memberships, each with full rights, at a significant discount for the organization. Members receive many benefits, including our newsletter by direct email and eligibility to participate in the OFWIM Content Management System (CMS), a members-only online forum for posting and reviewing documents, communicating with other members, and discussing current issues.

I urge you to become an active member of OFWIM. There are many wonderful people in this organization who you will get to know as you work together on important issues. We have a number of active committees, and you can review their objectives for 2005 on the OFWIM website at www.ofwim.org. Please contact the committee chairs to join up. I also encourage you to attend, and present, at our annual conference, scheduled this year for October 17-20 in Tallahassee, Florida. Our annual conference is one of the primary ways that we share ideas, information, tools, and techniques. It is also how friendships are made and maintained. And, please spread the word about OFWIM! We need to strengthen our community now more than ever.

Again, welcome! I look forward to working with you!

Sincerely,

Bruce Schmidt
2005 OFWIM President

Cc: Amy Martin, Secretary
2005 Individual Membership Form

Use the form below to join OFWIM as a new member or to renew your membership for 2005. Individual Members are entitled to vote in the annual election and hold office. Current members are notified of new newsletters and have access to special OFWIM web content. Current members also receive a discount on 2005 conference registration.

If you work for an organization with 4 or more individuals interested in OFWIM membership, you may benefit from obtaining an Organizational Membership. Information about Organizational Membership can be found at: [http://www.ofwim.org/org/membership.html](http://www.ofwim.org/org/membership.html)

The 2005 OFWIM annual membership period is January 1, 2005 through December 31, 2005. To become a new member of OFWIM or renew your current membership, please complete and mail the form below with a check or money order for $25 (in U.S. dollars!) payable to OFWIM, to:

Daniel Vichtenbandha, OFWIM Treasurer
C/o Kentucky Department of Fish & Wildlife Resources
1 Game Farm Road
Frankfort, KY 40601-3908

OFWIM 2005 Membership Form

Name:________________________________________

Agency:_____________________________________

Address:_____________________________________

City: ______________________ State: _____ Zip: _______

Phone: (____)________________ Fax: (____)_________

Email:_______________________________________

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Please pay in U.S. dollars! $_______
Thank you to all who submitted articles to this issue of the OFWIM news!

Article Deadline for Spring Issue: June 1, 2005

2005 OFWIM Conference and Annual Meeting Notes

Call for Papers!!
Check <www.ofwim.org> for more information.
Deadline for submission: April 29, 2005
Topics include: Data Flow, GIS applications, Data Sharing, Comprehensive Wildlife Conservation Strategies, and Doing More with Less—the Funding and Management Dilemma.
Submit Papers/Symposia to: Lila Borge Wills <lborge@vt.edu> Submit posters to: Sabra Schwartz <sschwartz@azgfd.gov>

We are looking for volunteers! We need volunteers willing to help plan the meeting program as well as people willing to help with the meeting facility, attracting vendors and the like. If you are interested, please contact Beth Stys, OFWIM President-Elect, by email at beth.stys@fwc.state.fl.us or by phone at 850-486-6661.

We are also looking for suggestions about where the OFWIM 2006 Conference and Annual Meeting should be held. Please submit your suggestions by email to Bruce Schmidt, OFWIM President, at bruce_schmidt@psmfc.org or by phone at 503-595-3113.