



nbi Wildlife Disease Information Node

A One-Stop Resource for
Wildlife Disease Information

Finding and Sharing Wildlife Disease Information

*What works, what doesn't and
what's missing?*

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USGS *USGS*
National Wildlife Health Center



The objective of this third symposium session is to listen and learn from you, the wildlife health professionals, about what tools and services you would like WDIN to develop that would help you find information that keeps you up-to-date on current wildlife disease issues. We want your feedback and guidance to ensure that the time and resource we spend actually create tools that this community will use.

WDIN Vision To be an online community, not just a website



So to begin, I wanted share our vision of WDIN. We want to grow beyond just being a website warehousing information, adding content now and again. We are striving to make WDIN an online community where members can connect with people and content: a place where they can collaborate on a project with distance colleagues, or a place to go to find and share current, useful information among themselves. In the near future, we would like this professional community to feel as though WDIN belongs to them.

We on the WDIN staff, with the exception of Dr. Josh Dein, are not wildlife disease experts. We are just information and technology geeks who would like to help wildlife health professionals connect and network together better, with the result of hopefully becoming a larger and stronger community. In order to bring the WDIN vision to full fruition, we need your feedback. We need your thoughts on what tools and services you think we should develop that would help this group stay up-to-date on the latest developments in the wildlife disease arena, and hence assist in achieving the larger goal of disease management.

Outline

What are we going to talk about?

- 1. What kinds of tools are available to find current information for your job and/or your hobbies?**
- 2. What kinds of information are missing?**
 - Share some ideas WDIN has
- 3. What kind of tools would allow the wildlife health community to better share information and thereby help each other keep up on changes and developments in the arena of wildlife disease?**
 - Provide examples and how these can be modified for professional use



To accomplish this objective, these are the areas I am going to focus on.

First, I'll provide examples of tools people are using to find current information for their job and/ or their hobbies.

Next, we'll discuss what kinds of information are missing from the landscape of wildlife diseases. I'll provide some examples of gaps WDIN has identified to get the conversation started.

Lastly, we'll look at ways people are sharing information. I will provide some interesting and innovative examples of how people are talking and networking online and offer some ideas of how these same tools can be modified for wildlife disease work.

At the end, I'll open the session up for discussion about which of these ideas interest people and get a general consensus from the group as to which ideas WDIN should pursue further.

Where do you look for information. . . ?



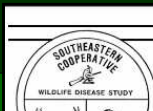
Where do you look to find current information for your job? How do you. . .

- Learn about new local outbreaks?
- Find out about current research?
- Hear about disease outbreaks in other states or countries?
- Find an expert?
- Learn about what other wildlife disease organizations are up to?

These questions are just to get you thinking about the tools you use in your job to find information or answers. I'll review some of the more traditional methods folks use, and then I'll move onto discussing new tools that are available for finding and sharing information both at home and at work.

Tools for Finding Information Newsletters

SCWDS



SCWDS BRIEFS
A Quarterly Newsletter from the
SOUTHEASTERN COOPERATIVE WILDLIFE DISEASE STUDY
COLLEGE OF VETERINARY MEDICINE

WDIN



WDIN Highlights 
Spotlighting WDIN features and functions
Volume 2, Issue 3 3.15.2007
Upcoming Events

CCWHC

Canadian Cooperative
Wildlife Health Centre

Centre Canadien Coopératif
de la Santé de la Faune

CHRONIC WASTING DISEASE UPDATE

Wisconsin Department of Natural Resources

May 2007

CWD Public Dialogue to Begin

At its April 2007 meeting, the Natural Resources Board approved implementing a statewide effort during 2007 to engage the public in developing the next phase of CWD management in Wisconsin. The dialogue will engage the multiple and diverse interests potentially affected by the department's disease and deer herd management decisions.



2006-2007 Harvest and CWD Testing

Wildlife Health Centre Newsletter

National Information Line 1-800-567-2033

Number 1
s Inter-agency Wild Bird Influenza Survey—
from 2005
1 of 2005, a survey was undertaken to document

WDNR

Newsletters

Tools for Finding Information

Journal articles



Journal articles

Tools for Finding Information

Search engines

The screenshot shows the Ask.com search results for 'west nile virus'. The search bar at the top left contains the text 'west nile virus'. Below the search bar, there are two red circles: one around the search bar and another around the 'Expand Your Search' link. A blue circle highlights a preview of a website titled 'West Nile Virus' from 'Mediase Plus'. To the right of the main search results, there are three purple circles: one around the 'Images' link, one around the 'News' link, and one around the 'Video' link. A purple box on the right side of the page contains the text 'Other matches for different format types'. A blue box in the center of the page contains the text 'Preview site'. A pink box on the left side of the page contains the text 'Narrow or expand search'. The search results include a main entry for 'West Nile Virus' with a description and links to 'Overview', 'Factsheet', 'Prevention', 'Symptoms', 'Treatment', 'Q&A', and 'Resources'. Below this, there are several other search results, including one from 'Mediase Plus' and one from 'CDC West Nile'.

There is, of course, the big one, Google. But, there are other search engines out there. For example, Scirus, which is for scientific information only. You can specify if you are interested in finding a journal article or website or both.

Ask.com provides suggestions on how to narrow or broaden your search. You can also preview a snapshot of a website homepage before you go to it, and it gives you matches on different formats - images, news and videos.

Tools for Finding Information

Listservs

APPLIED-GIS-RS@LISTES.ULAVAL.CA

Applied GIS and RS

WDIN

WildlifeHealth Electronic Discussion List

LISTSERV@LISTSERV.AALAS.ORG

CompMed



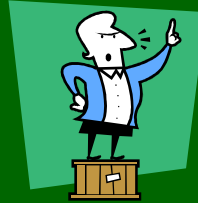
Join Our Listserv!



Listservs - you can find a listserv on almost any topic, including wildlife health.

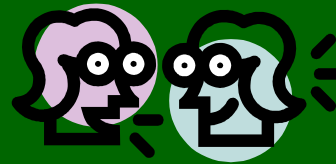
Tools for Finding Information

The old fashioned way – talking



Conferences

Phone



Face-to-Face



And of course you can actually talk to someone. Yes, this still works even in today's world of computers and the internet.

WEB 2.0

New, fun tools to connect with people & content

- RSS Feeds
- Podcasts
- Blogs
- Forums

WEB 2.0

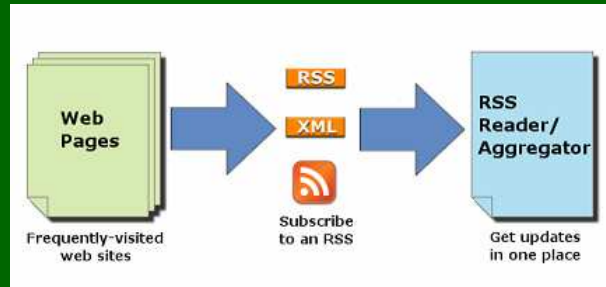
So now on to the fun, techie tools, all of which are part of a push to transform the Internet into a more interactive place. Back in the days before the Internet, people used to organize get-togethers in order to socialize with those who shared similar interests, like quilting parties, book clubs, and church socials. Of course people still do this, but it seems like organizing group gatherings is harder today because everyone is so busy with work and family.

The Internet has helped some to overcome this by providing virtual meeting grounds where people can connect anywhere at anytime by providing social networking tools. You have probably heard of some of these tools: blogs, wikis, RSS feeds, podcasts, forums and so on. These social networking tools play an important part in transforming the Internet into the next version of itself: Web 2.0. The web is in the process of moving past just being a collection of websites, or isolated information silos, to a genuine place of social interaction and exchange. In some areas of interest, these tools have already greatly improved the efficiency of and ability to support the sharing of information and knowledge in a timely manner.

New Information Finding Tools

RSS - Real Simple Syndication

- Allows you to keep up-to-date on your favorite web sites in an automated manner
- Provides updates almost simultaneously as your favorite sites are updated



One new, fun tool out there is RSS feeds. RSS stands for Real Simple Syndication. Developers format information so that it can be streamed into the Internet. You can subscribe to these streams of information by using a feed reader or news feed aggregator.

In using this application, you don't have to go and check your favorite sites manually, all the content from each site can be pulled into one location. It is like building your own newspaper out of your favorite sites. Anytime your favorite site is updated, your feed reader is simultaneously updated, and you will see this new content next time you visit your feed reader website.

New Information Finding Tools RSS - Real Simple Syndication











The screenshot shows the Bloglines web interface. On the left, a sidebar lists various RSS feeds, including 'wildlife disease - Google News' which is circled in blue. The main content area on the right displays a news article titled 'National Elk Refuge manager to retire - Billings Gazette'. A blue callout box with a white background and black text points to the 'wildlife disease - Google News' feed in the sidebar, containing the text: "Wildlife Disease" feed being read (Left) Output is wildlife disease news articles (Right). Another blue callout box with a white background and black text points to the article content, containing the text: "A type of feed reader". At the bottom of the interface, there are logos for nbi (National Biological Information Infrastructure), USGS (United States Geological Survey), and a circular logo with a 'W'.

There are a number of feed readers online. I use Bloglines. I have over 50 news sites that I check regularly to stay current on wildlife disease issues, library news, movies, science in general, and Internet developments. Each feed I check on the left provides a brief list of updates from that site source on the right .

RSS Feeds

Endless stream of information

The screenshot shows a web browser window with the URL <http://wildlifedisease.nbii.gov/index.jsp>. The browser's address bar and toolbar are visible. The website content includes the NBII logo, the text "Wildlife Disease Information Node", and several RSS feed symbols. A red circle highlights the RSS symbol in the browser's address bar. Below the main content, there are logos for "The New York Times", "foodgeeks.com", "LiveScience's Image of the Day", "ScienceDaily", and "RollingStone". On the right side, there is a "Michigan.gov" logo and a "Department of Natural Resources" logo. Below these logos, there is a table titled "Michigan.Gov List of Available RSS Feeds for DNR".

RSS/XML Link	Agency/Page Component
	Department of Natural Resources - License package header
	Department of Natural Resources - Hot topics large header
	Department of Natural Resources - DNR-spotlight-home-header
	Hunting Hot Topics - Hot Hunting Topics
	Hunting Hot Topics - Applications and Drawings
	Hunting Hot Topics - guides header
	Metallic - Metallic/Minerals
	Michigan Forest Finance Authority - DNR-KA-Meetings/Schedules/Agendas

Many sites, including the Wildlife Disease Information Node, offer RSS feeds from their site. As you surf the web, look for the RSS symbols. If one is present, the site offers some kind of the RSS feed to its content.

Here is an example of the many different kinds of websites that offer RSS feeds.

New Information Finding Tools

Podcasts

- Offers pre-recorded audio broadcasts to review at your leisure offline
- Can subscribe and get updates automatically
- Many organizations, including universities have begun to offer lectures and presentations as podcasts
- Most podcasts are FREE!

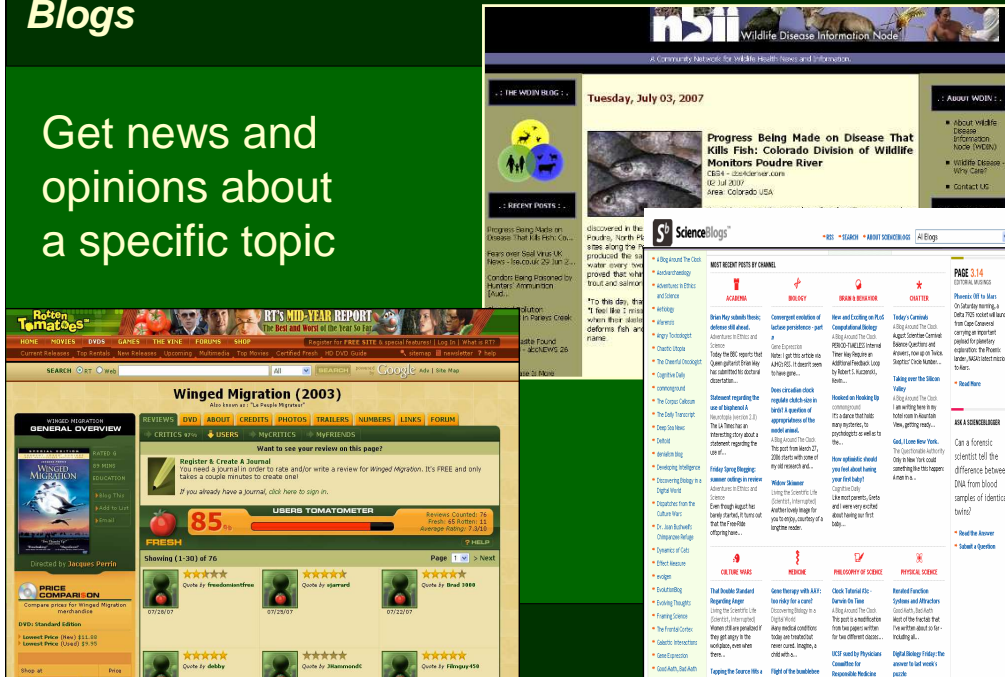
The image displays two screenshots of podcast-related websites. The top screenshot shows the Science Friday website, featuring a navigation bar with logos for various media outlets (ABC, CBS, FOX, NBC, PBS, NPR) and a section titled 'webcast/courses'. Below this, there is a 'Lecture Archive' table listing episodes of 'ESPM 114 Wildlife Ecology' with dates and titles. The bottom screenshot shows the 'npr podcast directory' website, specifically the 'Movie Reviews [wosu]' page. It includes a description of the content, a 'Subscribe' button, and a URL for direct subscription: <http://www.publicbroadcasting.net/wosu/>.

Whether you have a iPod or not, you can get information through podcasts. These audio broadcasts can be downloaded directly to an iPod, or any MP3 player, or you can just listen to them on your computer at your leisure. There are podcasts on almost any topic you can think of. Like RSS feeds, you can subscribe to them and get the latest broadcasts automatically.

Many universities are making their lectures available through podcasts, such as UC Berkeley. Here is a class on Wildlife Ecology. Conference proceedings are also being made available in a podcast format.

New Information Finding Tools Blogs

Get news and opinions about a specific topic



Blogs are a fun way to find the latest news or what people are talking about.

For example before seeing a movie you can check out what moviegoers are saying about a particular movie. Here bloggers gave Winged Migration a thumbs up.

Blog can also be used to bring news about specific topics together into one place. There are a number of science blogs that harvest daily science news. The example used here, Science Blog, brings together content from over 60 science blogs and organizes them by topic.

WDIN puts out the Wildlife Disease News Digest which is a blog. Almost daily, wildlife disease news that is making the headlines is brought together in one place, posted to our blog.

New Information Finding Tools

Forums

- Discussions are organized chronologically and archived
- Provides documentation of discussions and final decisions
- Used for recreational and professional projects

The screenshot displays a web forum interface. At the top, there is a header for "LAWN / GARDEN TRACTOR FORUM" with a small image of a tractor. Below this is a navigation bar for "Generalody.com" with various menu items like "LEARNING CENTER", "COMMUNITY", and "MY GENERALODY.COM". The main content area is titled "American Revolution Forum" and contains a "Discussion Forums" section. This section includes a search bar and a list of forum topics with columns for "Forum", "Last Message", "Threads", and "Messages".

Forum	Last Message	Threads	Messages
News Discussion new	6 mins ago	16,328	224,813
Open Talk new	4 mins ago	60,416	472,735
Property Questions new	12 mins ago	8,907	43,107
The Digital Talk new	14 mins ago	30,969	206,125
General Technique new	7 mins ago	22,290	271,577
Canon Talk new	4 mins ago	128,610	953,057
Canon EOS M300/200/100/60/50/30 new	5 mins ago	110,076	1,195,000
Canon EOS 300/200/100/60/50/30 new	2 mins ago	147,197	1,062,530
Canon EOS 100/60/50/30 new	8 mins ago	46,248	623,818
Canon SLR Lens Talk new	3 mins ago	81,276	951,666
Canon Talk new	13 mins ago	10,530	63,476
Canon Talk new	20 mins ago	26,282	195,746
Canon SLR Talk new	6 mins ago	33,595	314,765
Canon Talk new	2 hours ago	19,111	93,195
Canon SLR Talk new	3 hours ago	4,424	65,000
Canon SLR Talk new	46 mins ago	41,208	267,310
Canon SLR Talk new	9 mins ago	20,092	300,088

Web forums are another way to find information, they are also known as message boards, bulletin boards or electronic discussion groups. Members use this tool to talk about various topics. The discussions are organized chronologically and archived.

New Information Finding Tools Forums

The image displays two screenshots of online forums. The top screenshot is for the SNOMED Veterinary Forum, featuring a navigation bar with links for Register, FAQ, Members List, Calendar, Today's Posts, and Search. Below the navigation bar, there is a welcome message and a list of forum categories such as Findings, Diagnoses, Morphology, Living Organisms, Topography, Chemicals, Procedures, Functionality, SNOMED Syntax, HL7 / XML, and Record Abstract Guideline. The bottom screenshot is for the NAHLN Terminology Service forum, which includes a navigation bar with Message, Search, Download, Forum, and Resources. The forum content includes sections for NAHLN Documents, Terminology Discussion, and Implementation Issues, along with a 'What's Going On?' section showing active users and forum statistics.

Forums can be used by professional groups when working on projects to gather members' thoughts and opinions, and to document discussions and decisions. Here are two veterinary organizations that are using forums to develop standards for veterinary databases. SNOMED - Systematized NOMenclature of MEDicine - is a standardized vocabulary system for medical and veterinary record databases.

NAHLN - National Animal Health Laboratory Network – is an organization working on standards for electronic messaging and coding of laboratory diagnostic data for both test orders and results. This allows the lab and submitting computer systems to exchange test information without having someone to manually enter the information.

What Types of Wildlife Disease Information are Missing?

- News
- Upcoming conferences
- Available datasets
- Journal articles
- Maps
- Images – photos, graphics
- Directories
- Others?



Despite all the fancy information finding tools, despite the “all knowing” Google that everyone has come to rely on, what types of information do you still have trouble finding? Over the next few slides, I'll share some gaps that WDIN has identified.

Hey, Here is an Idea!

An Expertise Directory

Jim Henson Muppets



Beaker – Timid Scientist

Address: Muppet's Show
Rainbow Connection
Hollywood, CA 53711-6223.

Phone: 616.270.5000

Email: becker@meepuniversity.edu

Areas of Expertise

Laboratory mishaps, Dr Bunsen Honeydew's perpetual victim

Recent Publications

B Honeydew and Beaker. Surviving Laboratory Experiments that Go Awry. Muppet Chemistry. 2006
Jun;60(6):1446-56.

[>>> For PubMed Publications](#)



WDIN thought it would helpful to have a wildlife disease expertise directory so people both in and outside the wildlife community would know who best to contact with questions or proposals. Here is an example of a layout.

Hey, Here is an Idea! *An Expertise Directory*

Create an online entry form with the following fields

- Name
- Mailing address
- Email
- Phone number
- Areas of expertise
- Recent publications
- Publications of note
- Research areas
- Research projects
- Education
- Date last updated

We could create a easy online form for people to complete about themselves. It could be reviewed every year or two for accuracy. These are some of the fields we could include.

Hey, Here is an Idea! *A Research Project Directory*

- A significant amount of research is not publicly available
- A sub-set of information from the expertise directory could be used to develop a searchable directory of completed research projects
- These two directories could be linked
 - Detailed info about both a project and the researcher would be available and searchable



Another kind of directory we thought people would find useful is a research directory.

Hey, Here is an Idea! *Research Project Directory*

Searchable fields could include the following:

- Research investigators w/ contact info
- Start and end dates
- Location of research
- Abstract or description of project
- Published articles



Hey, Here is an Idea! Create a My WDIN web page

Create and manage
your own wildlife
disease web page.

The screenshot shows an iGoogle homepage with a custom dashboard for Wildlife Disease Information Node (WDIN). The dashboard includes several gadgets: a 'Mortality Reporting Gadget' with fields for location, agency, and contact info; 'Upcoming Meetings & Events' listing various conferences; 'Wildlife Disease Information Node Blog' with news items; 'WDIN New Content' with research articles; 'Wildlife Publications' with reports and guides; and 'My Gadgets'. A red circle highlights the 'Add stuff' button in the top right corner of the dashboard area.

WDIN could use the iGoogle portal as an example of how we could customize the WDIN website for individual users, so they could create a My WDIN web page. Much of the content on WDIN right now is or can be converted to RSS feeds or other formats which allows the information to be streamed in and a plopped into a web page.

This iGoogle page is being filled with RSS feeds from the WDIN website. Anytime new content is added to the site, the section labeled “WDIN New Content” is updated when page refreshes or the user returns to the site. The other feeds listed here are from our Events Calendar, the Wildlife Disease News Digest and newly added Wildlife Publications.

iGoogle also allows you to select more stuff to add to your page.

Hey, Here is an Idea! Create a My WDIN web page

Add stuff to your homepage

Popular
News
Tools
Communication
Fun & Games
Finance
Sports
Lifestyle
Technology
New stuff
My community

Gmail 3,461,267 users
Wikipedia 1,203,164 users
Google Map Search 29,614 users
ToDo 192,760 users
Weather Forecasts 130,790 users
Dictionary 146,299 users

Quotes of the Day 1,328,916 users
Search YouTube 228,981 users
Einstein Quota of the Day 83,256 users
BBC News | News Front Page L... 575,079 users
Brain Teasers 118,743 users
Jon Stewart Quota of the Day 36,754 users

HowStuffWorks: Daily Stuff Feed 119,227 users
Current Moon Phase 449,258 users
Garfield of the day 119,056 users
Free iTunes Store Downloads 42,812 users
Daylight Map 50,407 users
Google News 208,678 users

Translate 126,400 users
Local Gas Prices 102,000 users
Hangman (word game) 123,752 users
Bible Verse of the Day 146,855 users
The World's Healthiest Foods 88,013 users
Puzzles and Riddles 35,103 users

nbi Wildlife Disease Information Node
USGS
W

We can create more wildlife health stuff that could be added to customized page. Here iGoogle provides a menu of tools and gadgets you can add to your iGoogle website. With a little tweaking, it is possible that we could allow people to add iGoogle gadgets and stuff to a My WDIN page.

Hey, Here is an Idea! Create a My WDIN web page

The screenshot displays a web page titled "Colorado Division of Wildlife" with the tagline "For wildlife, for people." The page is customized to show news feeds related to avian influenza. The navigation bar includes "Wildlife Disease General", "Avian Influenza", "Chronic Wasting Disease", and "West Nile Virus". The main content area is divided into several sections:

- WDIN New Avian Influenza Content:**
 - [Predicting the Global Spread of H5N1 Avian Influenza](#)
 - [Aniferal Response in Pandemic Influenza Viruses](#)
 - [Using RRT-PCR Analysis and Virus Isolation to Determine the Prevalence of Avian Influenza Virus Infections in Ducks at Minto Flats State Game Refuge, Alaska, During August 2005](#)
- HEDDS Surveillance News:**
 - [17 new samples and tests were added to HEDDS for 2006. Total is now 148,943.](#)
 - [457 samples and tests were added to HEDDS for 2007. Total is now 7,148.](#)
 - [17 samples and tests were added to HEDDS for 2007. Total is now 6,691.](#)
- Bird Flu Top Stories from Washington:**
 - [Simple Planning Tools Can Help in Early Days of Pandemic](#)
 - [Human Toll from Avian Influenza Continues in Nigeria, Egypt](#)
 - [Avian Influenza Causes More Human Deaths in Indonesia, Egypt](#)
- PandemicFlu.gov RSS Feed for Website Updates:**
 - [Hospital Pandemic Influenza Planning Checklist](#)
 - [HHS launched the Pandemic Flu Leadership Blog, a 5-week-long blog summit about pandemic preparedness.](#)
 - [Pandemic Influenza Preparedness and Response Guidance for Healthcare Workers and Healthcare Employers](#)
- USDA - Avian Influenza:**
 - [National Strategy for Pandemic Influenza Implementation Plan One Year Summary](#)
 - [NEW Brochure, Avian Influenza-USDA Efforts and Response \(PDF\) \(Vietnamese\)](#)
 - [Click Here For Information About Suspected Routine Low Pathogenic H5N1 Avian Influenza Test Results](#)
- Bird Flu / Avian Flu News From Medical News Today:**
 - [Baxter Announces Preliminary Phase III Data For Seasonal Influenza Vaccine Candidate](#)
 - [ImmuneRegen BioSciences, Inc. And Virion Systems, Inc. Continue Testing Virovex\(R\) And Tamiflu\(R\) As Possible Influenza Co-Treatment](#)
 - [Carlinston Subsidiary DelSite Receives H5N1 \(Bird Flu\) Antigen](#)

The footer of the page includes the "nbi Wildlife Disease Information Node" logo and the "USGS" logo.

Here is an example of what a customized My WDIN page might look like for someone working for the Colorado Division of Wildlife whose research focus is avian influenza (AI). This page is set up to pull in AI RSS feeds from the WDIN site and the HEDDS system. There are also news feeds being pulled in from other sources, Top bird flu stories from Washington, USDA AI updates, feeds from Pandemic Flu and AI related medical news.

Hey, Here is an Idea!

WDIN training on new web applications

- Organize training sessions on how to use WDIN tools/ services. (e.g. rss feeds, interactive maps, search engines)
- Conduct training sessions on useful web applications (e.g. how to use a forum or an online citation manager)



Lastly, WDIN could organize training sessions via webcasting for those interested in learning how to make use of the tools and services WDIN offers. For example, maybe a training session on how to use WDIN RSS feeds or how to make the most of WDIN's advanced search engine.

We could also offer training sessions on the many free web applications that can be very useful, such as how use a forum for a work project or how to use an online citation manager to organize your journal article collection.

These are just some of WDIN's ideas. At the end of the presentation, we'll be interested in hearing if you have some ideas of your own.

Sharing Information

How can the wildlife health community better share information to help each other keep up on changes and development in the arena of wildlife diseases?



For the final part of the presentation, I am going to show you examples of ways people are sharing information. And you may be asking yourself why is WDIN so interested in getting folks to share information, especially in the workplace? It takes time and it is often cumbersome. Is it really necessary? Won't people eventually find what they are looking for on their own?

Invisible Web

Part of the web that cannot be “seen” by search engines

Visible/Surface Web

Invisible/ Deep Web



Image credit: www.closerlooksearch.com/invisibleweb.aspx



Well, actually they might not. One of the key reasons why we with WDIN are continuously jumping up and down on our soapbox about this is because of the Invisible Web. A larger portion of the web is elusive. It cannot be crawled and indexed by search engines and hence its contents remain invisible and irretrievable. A significant amount of the invisible web is information that is hidden in databases where even Google can't find it.

[1] Baker, J. 2004. Invisible web: What it is, why it exists, how to find it, and its inherent ambiguity". UC Berkeley-Teaching Library Internet Workshops.
<http://www.lib.berkeley.edu/TeachingLib/Guides/Internet/InvisibleWeb.html>

[2] Sullivan, D. 2000. Invisible web gets deeper. *The Search Engine Report*. Search Engine Watch
<http://searchenginewatch.com/showPage.html?page=2162871>

Invisible Web

How much information is out there?

- Invisible web = 91,000 terabytes
- Surface web = 167 terabytes
- Library of Congress = 11 terabytes



One source cited by Wikipedia from a Berkeley study, titled *How much information is there?*, estimated that the deep web consists of about 91,000 [terabytes](#). By contrast, the surface web, which is easily reached by search engines, is only about 167 terabytes. While the [Library of Congress](#) for comparison contains about 11 terabytes.

Add to this the significant amount of valuable agency information that is not yet in digital form capable of web access, and I think you can see why we feel it is important that wildlife health organizations share the information they are aware of or have developed in-house, because it may not be accessible any other way.

WDIN is very interested in assisting agencies in converting their resources into an electronic format, so that they can offer them to others through the Internet. This could be photos, videos, audio recording, bibliographies, or datasets.

Hey, Here is an Idea! *Share a web site or online resource*

Create a very simple online form to collect resource suggestions

- URL or other location
- Title
- Submitter name, email and affiliation of submitter



WDIN can create tools to connect people to each other and to wildlife disease content, but the challenge is continually gathering new, quality information, especially when information can be either buried deep within the Internet or confined to local systems.






To succeed we need more than just cool gadgets, we need help from the wildlife health community to contribute content in order to build a large collection of wildlife disease resources. Certainly, the amount of quality information that could be collected as a result of a shared community effort will be far superior to that collected by a couple of WDIN staff members.

To facilitate this, WDIN could create an easy to use online form that community members could use to contribute content.

Hey, Here is an Idea!

Share web site or online resource

Wildlife Websites


Alaska Science Center - Image Gallery Highlighting Species Targeted for Avian Influenza Surveillance Sampling [Show Full Record](#)
Source: Alaska Science Center
Resource Type(s): Image Galleries
Searchable Keywords: Alaska Avian influenza Surveillance (monitoring) Target species Waterfowl Wild birds
Abstract: Provides photographic images of species targeted for avian influenza surveillance sampling. Images are available to download and organized by the following categories, Shorebirds, Landbirds, Gulls & Terns, and Waterfowl.



Avian Influenza - Fact Sheets, SCWDS Briefs and Publications [Show Full Record](#)
Source: Southeastern Cooperative Wildlife Disease Study (U.S.)
Resource Type(s): Bibliography & Web indexes, Fact Sheets, Journal (Articles), Newsletters/Bulletins
Searchable Keywords: Avian influenza Disease transmission Poultry farming Wild birds
Abstract: Lists a collection of SCWDS Briefs and publications on avian influenza. A five-page fact sheet prepared by SCWDS titled, Highly Pathogenic Avian Influenza Virus H5N1 and Wild Birds, is also available.

Avian Influenza Contact Information by State/Territory for Agriculture, Wildlife and Public Health Departments [Show Full Record](#)
Source: U.S. Department of Health and Human Services
Resource Type(s): Directories
Searchable Keywords: Avian influenza Disease control Epidemiology Morbidity and mortality reporting system Prevention & control Public information Sentinel surveillance
Abstract: Lists state and territorial departments in the United States that citizens can contact to report sick or dead wild birds. The information includes contacts in the agricultural, wildlife, and public health departments.

Avian Influenza in Wild Birds - Sources of Information [Show Full Record](#)
Source: U.S. Fish and Wildlife Service, Division of Migratory Bird Management.
Resource Type(s): Bibliography & Web indexes, Fact Sheets, FAQs
Searchable Keywords: Birds Information dissemination Information resources Wildlife
Abstract: Provides an extensive collection of informative websites that have information specific to avian influenza in wild birds. The links are organized into the following categories, Agencies of the U.S. Government, Other Government Agencies Worldwide, Views of Non-Governmental Bird Conservation Organizations, Media Sources, Technical Literature, Avian influenza in humans, Avian influenza in domestic poultry.

Avian Influenza: Science at the Forefront - Presentations and Handouts Presented at the January 2006 Congressional Briefing [Show Full Record](#)
Source: U.S. Geological Survey
Resource Type(s): Fact Sheets, FAQs, Issue Overviews, Presentations
Searchable Keywords: Disease transmission Epidemiology Migratory birds Prevention & control Surveillance (monitoring)
Abstract: Provides presentations and handouts given at the congressional briefing, which outlined "how the USGS, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture are working with other Federal and State partners in a coordinated, scientific surveillance program aimed at protecting human and animal health from the impact of avian influenza." The presentations and authors were: 1) Susan Hasselbine: Avian Influenza: Science at the Forefront, 2) Dale Hall: Avian Influenza: Surveillan...



We could give credit to those organizations that suggest a resource by including their logo next to the resource.

Hey, Here is an Idea! Share web resources by sharing bookmarks

Click of a button saves bookmark

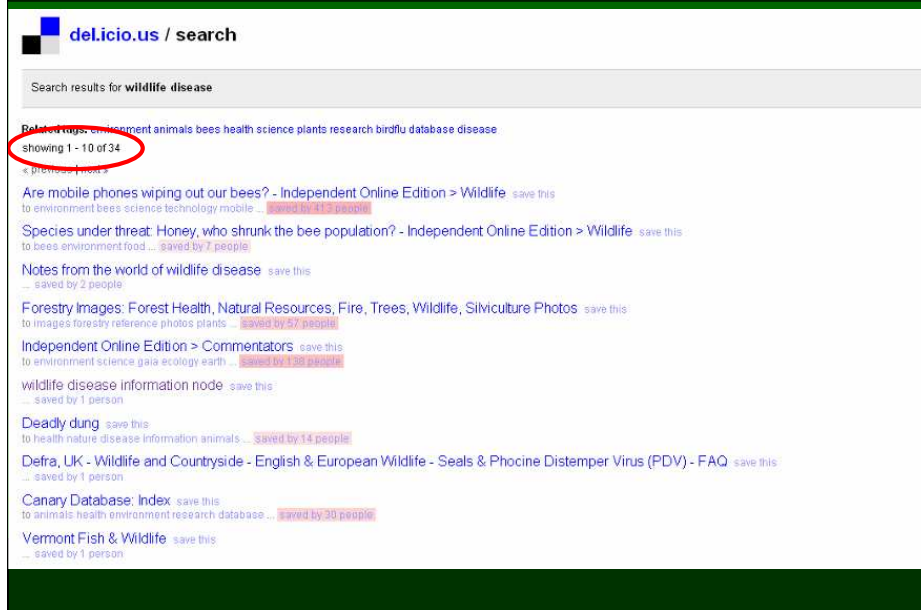
Use tags to organize bookmarked resources

If folks don't like the idea of filling out yet other online form, we could use a bookmarking services like del.icio.us. As you come along interesting websites, journal articles, maps, images and so on, you simply click a button, here, "Tag", and tag it with keywords. The advantage to you is you have access to an organized list of your bookmarks no matter which computer you are working at, and the advantage to the community is the tag like "wildlife diseases" that we all agree to use will bring together and build a collaborative repository of wildlife disease related information. Using RSS feeds, WDIN along with others, can monitor what new resources are being tagged with the term "wildlife disease". WDIN can take these resources, catalog them and make them searchable on the WDIN website.

There are a number of ways to share bookmarks, including creating group accounts, building a network, or sharing bookmarks directly. There are privacy settings, so users can control which bookmarks people can see. You can hide it.

Hey, Here is an Idea!

Share web resources by sharing bookmarks



The screenshot shows the Del.icio.us search interface. At the top, the text "del.icio.us / search" is visible. Below it, a search bar contains the text "Search results for wildlife disease". A red circle highlights the text "showing 1 - 10 of 34". Below this, a list of search results is displayed, each with a title, a brief description, and a "save this" link. The results include:

- Are mobile phones wiping out our bees? - Independent Online Edition > Wildlife
- Species under threat: Honey, who shrunk the bee population? - Independent Online Edition > Wildlife
- Notes from the world of wildlife disease
- Forestry Images: Forest Health, Natural Resources, Fire, Trees, Wildlife, Silviculture Photos
- Independent Online Edition > Commentators
- wildlife disease information node
- Deadly dung
- Defra, UK - Wildlife and Countryside - English & European Wildlife - Seals & Phocine Distemper Virus (PDV) - FAQ
- Canary Database: Index
- Vermont Fish & Wildlife

To date there are only 34 web resources users thought were worthy of tagging with the keyword “wildlife disease”.

Hey, Here is an Idea! *Citation Manager*

Connotea Organise. Share. Discover.

Search All avian influenza Find results

Home Blog About Connotea Site Guide Community pages My Library

Free online reference management for all researchers, clinicians and scientists
Completely free, no download
[sign up now](#)

Already Registered?
Username Password Login
Forgotten your username or password?

How it works

- 1 Find**
You find a reference
- 2 Save**
One click saves it on Connotea
- 3 Customize**
Add your own keywords for easy retrieval

Five reasons to use Connotea

1. **Save and organize** links to your references
2. Easily **share** references with colleagues
3. Access references from **any computer**
4. **One click** is all it takes
5. **Easy to use**. Start creating your library today

[Learn more](#)
[Watch a short video \(2m 41s\)](#)

Connotea is similar to del.icio.us, but it is specifically for scientists to help them manage and share their online article references. It is a FREE service. We could use this to build searchable bibliographies on various wildlife diseases.

Citation Manager

The screenshot shows a web browser window with a del.icio.us bookmark. The main content is the Connotea interface for adding a citation. The citation information is as follows:

- Identified: [Emerging Infectious Diseases of Wildlife-- Threats to Biodiversity and Human Health](#) *Science* 287 (5452), 443 (2000) <http://dx.doi.org/10.1126/science.287.5452.443>
- Display Title: (what you will see) [Add to my library](#)
- Tags: [Add to my library](#)
- Tag Suggestions: (click to add) [Add to my library](#)
- Description: (optional)
- My work: I am the author or one of the co-authors of this work. Share with all. Keep this bookmark private to me. [Add to my library](#)
- Private: UTC (yyyy-mm-dd hh:mm)
- Comment: (optional)

A yellow callout box on the right side of the screenshot contains the text: "If you created groups, this is where you would add an article to a group's library".

Like with del.icio.us, as you are on the web and come across an interesting article, you can click on the “Add to Connotea” button. Where it can, Connotea will pull the citation information in automatically, and then you can add tag terms. You can also decide if you want to share with everyone or just members of your group. You can also create groups among your colleagues and build a collection of articles together. You can have more than one group.

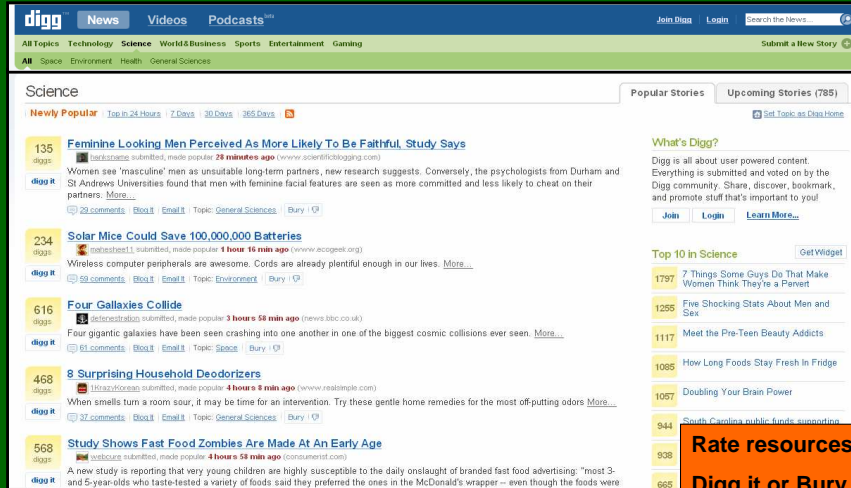
Hey, Here is an Idea! Citation Manager

The screenshot shows a web interface for a citation manager. At the top left, there's a section for 'Cris's tags' with a search box and a list of tags: ecology, emerging infectious diseases, house finches, Populations, wildlife, and wildlife diseases. A red circle highlights this section. In the top right, there are buttons for 'EXPORT LIST' and 'RSS', also circled in red. Below the tags is a search box and a list of bookmarks. The first bookmark is titled 'Seasonality and wildlife disease: how seasonal birth, aggregation and variation in immunity affect the dynamics of Mycoplasma gallisepticum in house finches' and includes a DOI and a post date. The second bookmark is 'Should we expect population thresholds for wildlife disease?' with a DOI and post date. The third bookmark is 'Emerging Infectious Diseases of Wildlife-- Threats to Biodiversity and Human Health' with a DOI and post date. A red circle highlights the 'Toolbox' on the right side, which contains options like 'Add a bookmark', 'Create a new group', 'Create a tag note', 'Rename a tag', 'Bookmarklets', 'Import from local file', 'Export my library', and 'Report a problem'. At the bottom, there are logos for 'nbi Wildlife Disease Information Node', 'USGS', and a 'W' logo.

This is a screenshot of my library. You can edit and manage your tags, you can export your library, and there is a toolbox for different ways to manage your citation collection.

I am not going to go into any more detail how it works, but just wanted to point out it is another way you can organize your literature collection and share it with colleagues, and hopefully with WDIN.

Hey, Here is an Idea! Share and rate web sites



The screenshot shows the Digg website interface. At the top, there are navigation tabs for 'News', 'Videos', and 'Podcasts'. Below that, a search bar and a 'Submit a New Story' button are visible. The main content area is titled 'Science' and features a 'Newly Popular' section. Five news items are listed, each with a 'digg it' button and a 'bury it' button. The items are:

- 135 diggs**: [Feminine Looking Men Perceived As More Likely To Be Faithful, Study Says](#). Women see 'masculine' men as unsuitable long-term partners, new research suggests. Conversely, the psychologists from Durham and St. Andrews Universities found that men with feminine facial features are seen as more committed and less likely to cheat on their partners. [More...](#)
- 234 diggs**: [Solar Mice Could Save 100,000,000 Batteries](#). Wireless computer peripherals are awesome. Cords are already plentiful enough in our lives. [More...](#)
- 616 diggs**: [Four Galaxies Collide](#). Four gigantic galaxies have been seen crashing into one another in one of the biggest cosmic collisions ever seen. [More...](#)
- 468 diggs**: [8 Surprising Household Deodorizers](#). When smells turn a room sour, it may be time for an intervention. Try these gentle home remedies for the most off-putting odors. [More...](#)
- 568 diggs**: [Study Shows Fast Food Zombies Are Made At An Early Age](#). A new study is reporting that very young children are highly susceptible to the daily onslaught of branded fast food advertising: "most 3- and 5-year-olds who taste-tested a variety of foods said they preferred the ones in the McDonald's wrapper - even though the foods were

On the right side, there is a 'Popular Stories' section and a 'What's Digg?' section. An orange callout box is overlaid on the bottom right of the screenshot, containing the text: **Rate resources**
Digg it or Bury it?



People submit news items to this website, digg, and then other folks come along and rate it. The more “digg it” votes it gets, the higher up on the list the news article goes. “Bury it” votes quickly send the article to the site’s catacombs. It can still be found if searched, but it will no longer be easily found by someone browsing. People can also add comments about the article or email it to a friend.

WDIN could provide something similar. This would provide the community control over what content is easily viewable and valued by your peers. With all the information you have to evaluate everyday to see if something is worth reading, wouldn’t it be helpful if a group of your peers helped filter out the not-so-great-stuff and highlighted the good stuff?

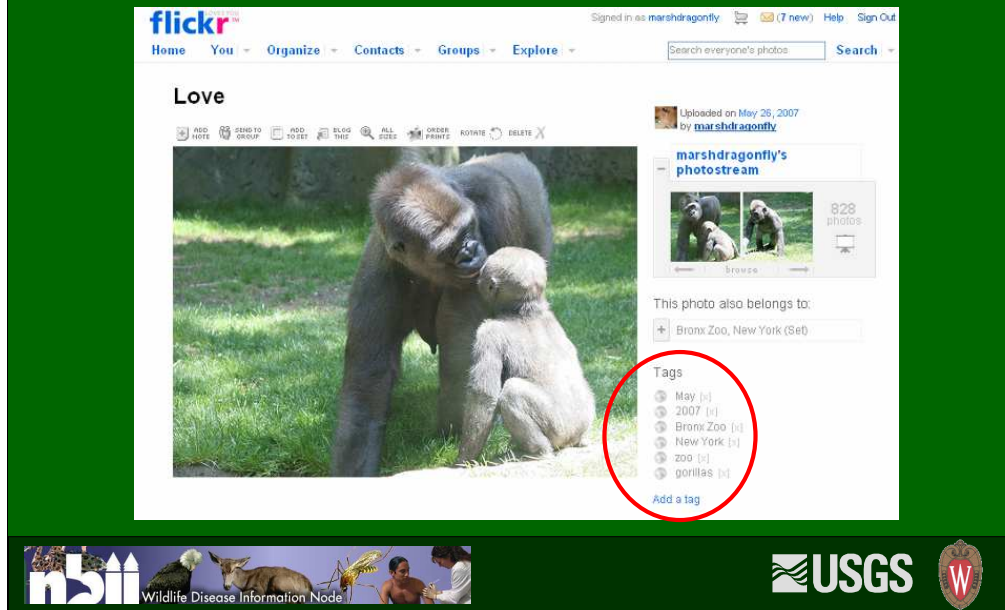
Hey, Here is an Idea!

Image gallery of wildlife disease

The screenshot displays the U.S. Fish & Wildlife Service Digital Library System interface. At the top, it features the agency logo and the text "U.S. Fish & Wildlife Service Digital Library System Gateway to Digital Media". Below this, there are navigation links for "home" and "advanced search", along with a "Back" button. The main content area is titled "Barrow's Goldeneye Drake" and contains two image thumbnails. The left thumbnail is a larger image with a file size of 3.00 MB, and the right thumbnail is a smaller image with a file size of 740 KB. Both images show a duck swimming in water. Below each image, there are technical specifications such as format (JPEG image), dimensions (Screen: 2401px x 3038px for the larger image, 756px x 1050px for the smaller image), print size (8.00 x 10.13 inches for the larger image, 5.04 x 7.00 inches for the smaller image), resolution (300 dpi for the larger image, 300 dpi for the smaller image), and depth (24 color(s)). A "Download to My Computer" link is provided for each image, with a "Click here" sub-link. A red circle highlights the "Enter Your Keywords" search box on the left side of the page. A pink box with the text "Search collection" is overlaid on the search box area. A purple box with the text "Download for use" is overlaid on the "Download to My Computer" link for the smaller image.

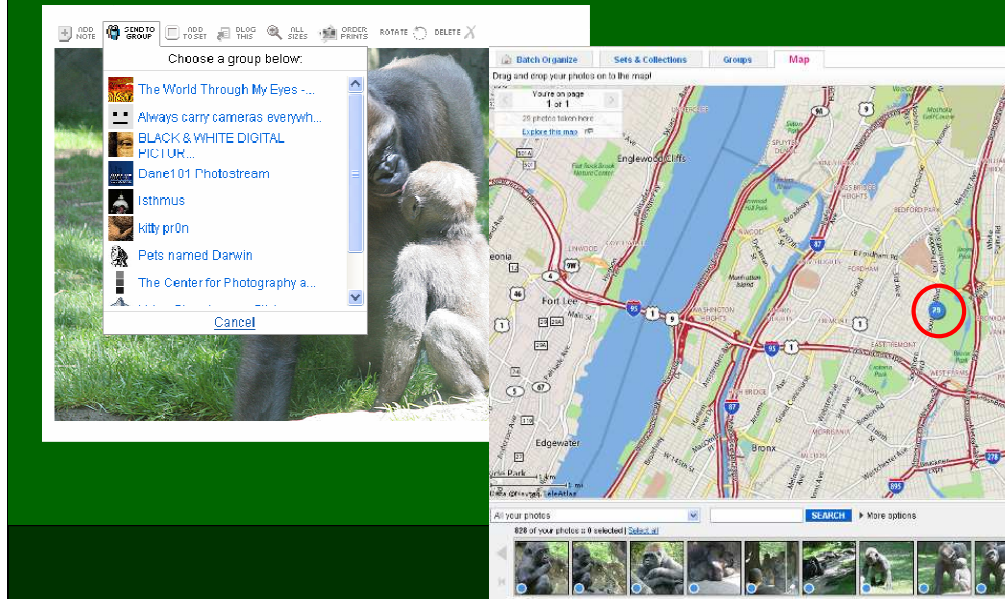
Organizations are beginning to understand the importance of their image collections and have made them available online. For example, FWS service began to make their collection of photos searchable and available for download.

Hey, Here is an Idea! *Image gallery of wildlife disease*



Flickr is one of many photo sharing services. I wanted to show you this because of the many different ways in which the photos can be organized, and also the use of tags again.

Hey, Here is an Idea! *Image gallery of wildlife disease*



On the left shows how you can add a photo to a sub-group, which can be anything you want, by disease, species or place. A groups can be closed to the public and require an invitation. They also can have an administrator who monitors submissions to the group.

On the right shows photos being organized geographically. Here are 29 photos linked to the Bronx Zoo. And below are all my photos I have linked to this point.

If folks had photos they wanted make available via the web, WDIN would be interested in helping them. We could create tools similar to those used by Flickr to organize photo collections and make them highly searchable.

Good Ideas? Not So Good? Other Ideas? We are Listening. . .

- Which ideas are of interest?
- Which ideas are of the least interest?
- What are your ideas? What tools do you already use that you really like? Can WDIN incorporate them into the web site?
- Which 3 or 4 tools/ services are worth developing (group consensus)
- Should WDIN organize training sessions?
- What incentives can WDIN set up to encourage participation? What can WDIN do to minimize participation barriers?
- Would there be restrictions to sharing content?



I have shared some ideas of tools and services WDIN could develop borrowing concepts and functions established by social networking tools, but what I would like to learn from you in the next 20 minutes is which of these ideas, or if any of them, are worth pursuing? We can build these things, but most will be worthless if the community does not contribute to them.

Thank You For Your Attention!

Questions?
Comments?
Suggestions?

Contact me -

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