

Software/Tool Comparison Worksheet

Criteria	Evaluation
Name	VertNet
Website/Contact	<p>http://vertnet.org/index.php David Bloom VertNet Coordinator Museum of Vertebrate Zoology University of California, Berkeley 3101 Valley Life Sciences Building Berkeley, CA 94720-3160 Phone: 510-643-1620 Fax: 510-643-8238 Email: dbloom@vertnet.org</p> <p>Laura Russell VertNet Programmer Natural History Museum & Biodiversity Institute University of Kansas 1345 Jayhawk Blvd. – Room 606 Lawrence, Kansas 66045-7561 Phone: 785-864-4681 Email: larussell@vertnet.org</p>
Description	<p>VertNet is an umbrella organization for four previous vertebrate network projects, including ORNIS (ornithology), MaNIS (mammalogy), HerpNet (herpetology), and FishNet2 (ichthyology). VertNet provides an online portal for searching and viewing vertebrate occurrence records distributed across natural history collections and institutions. VertNet data currently includes over 80 million records.</p> <p>Data are integrated into the VertNet search portal using Darwin Core Archives. Data updates are made by data publishers' updates to their archives, which are periodically harvested and processed for integration into the VertNet aggregated data stores. VertNet participants are registered with GBIF, also making their data available through the GBIF search portal. As with most data aggregators, casual online editing of individual records is not supported.</p> <p>Participation in VertNet is open to any institution (museum, university, etc.) that has mammalogical, herpetological, ornithological, or ichthyological occurrence data, including</p>

	<p>specimens and observations. Multiple collections from a single institution are supported.</p> <p>VertNet participating institutions can serve data through Darwin Core Archives stored at any stably accessible public location (such as Dropbox), through their own instance of GBIF's Integrated Publishing Toolkit (IPT), or through the free IPT hosted by VertNet. Participating data publishers are expected to be able to export their occurrence data and transform it, with support if necessary, into a compliant Darwin Core Archive.</p> <p>Future developments will include joint queries of multiple vertebrate classes with visualization of the aggregated data (such as all vertebrates for a specific geographical region), a thesaurus and other tools for reconciling non-standardized data across publishers, and integration with other biodiversity informatics projects, including GEOLocate, AmphibiaWeb, Map of Life, Specify, Arctos, DataONE, NEOMAP, Encyclopedia of Life, Animal Diversity Web, and others.</p>
<p>Computer hardware Operating system Supplementary software</p>	<p>No specific computer hardware or operating system is required for accessing or uploading data to VertNet. Participating institutions maintain data in a variety of database management systems operating on a variety of hardware and operating systems.</p> <p>Participating institutions may install an institutional instance of Integrated Publishing Toolkit for preparing Darwin Core Archives.</p> <p>The VertNet search and browse interface is accessible through any operating system and related internet browser.</p>
<p>Additional hardware required</p>	<p>None.</p>
<p>Features</p>	<p>An easy-to-use and attractive interface.</p> <p>Broad-based or narrow searches across a wide-range of institutional databases.</p> <p>Robust data networks with numerous important vertebrate collections.</p> <p>Personal assistance to participating institutions with preparing, mapping, and uploading data.</p>

	<p>Support for URL links to supplementary files stored elsewhere on the web, including still images, audio, video, and other related media.</p> <p>Support for a variety of biodiversity research opportunities, including spatial analysis and species distribution modeling.</p>
Longevity	<p>The vertebrate networks began with the creation of FishNet in 1999 and followed by MaNIS, HerpNET, and ORNIS. VertNet unites these four networks under a single vertebrate-based foundation. For a more detailed history, see http://vertnet.org/about/VertNetHistoricalTimeline.pdf</p>
Initial cost	<p>There are no direct costs related to VertNet. Indirect costs include a computer, database, and, if desired, a server for supporting an infrastructure to serve Darwin Core Archives.</p>
Maintenance cost	<p>There are no direct costs related to VertNet. Indirect costs include hardware and technical staff for maintaining infrastructure.</p>
Ease of setup/installation prerequisite skills	<p>VertNet staff provides technical support at all levels whether institutions choose to publish independently or prefer to be completely hands-off.</p>
Continuing IT support required?	<p>None related directly to VertNet. Maintenance of primary institutional databases and servers is required.</p>
Special skills required for maintenance	<p>None directly related to VertNet. Maintenance of primary institutional databases and servers is required.</p>
Challenges	<p>Viewable specimen images are not currently supported. However, image URLs can be uploaded and passed to GBIF.</p>