## John to and ing success

By Stacy Xenakis Biologist, Inland Fisheries Research Unit

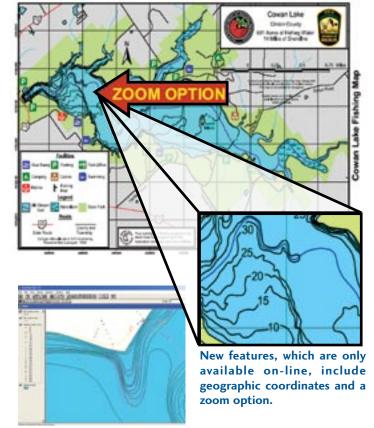
The three questions you might ask yourself before choosing to wet a line in Ohio's many lakes and reservoirs are "when, where, and how to find and hook fish?" Fishing reports on the Division of Wildlife's Website can provide the details about each of these important points, but did you know that additional details about "where" can be found by searching the Website for a map of a specific lake? In fact, many of our lake maps have been updated to provide current depth and shoreline information and other features such as roads, facilities, and fishing access sites.

To see the current list of all lakes, visit www.dnr.state.oh.us/wildlife/fishing and choose "Lake" in the left navigation bar under

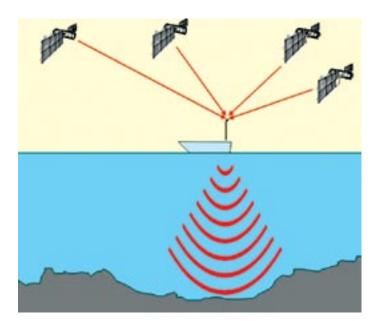
## "Find a Map."

Updates of lake contours are important because these waters change over time. Normal aging from natural and artificial processes such as sedimentation from inflow streams and eroding shorelines cause lakes to become shallower; whereas, dredging activities undertaken to aid navigation creates unnatural depth. Information about these bottom alterations is not only important to navigate our reservoirs, but it can also vastly improve your catch rates. While anglers generally target structure visible at or near the water's surface, the underlying terrain can be just as significant in locating fish. Identifying areas that attract fish such as underwater humps, holes, points, channels, and drop-offs will increase the likelihood of filling your live-well.

Other revisions to the lake maps include the addition of facilities, roads,



Original contours (in blue) are created using the depth data and then edited to smooth the lines.



The GPS antenna receives a signal from at least four satellites to obtain a geographic position. The datalogger then combines the coordinate data with the depth data from the echo sounder.



Thousands of geographically referenced depth points are collected to describe the area in as much detail as possible. As the driver navigates the boat along a transect, the datalogger records the coordinates along with a water depth every three seconds.





**Fathometer** 

Datalogger

Antenna



and access sites resulting from improvement projects and development. New features which are only available on-line include geographic coordinates and a zoom option. When paired with a personal GPS (Global Positioning System) these new features are particularly useful in locating and navigating to prime fishing spots. The zoom option provides a tool to zoom-in to a specific area on the map, and the UTM (Universal Transverse Mercator) coordinates, located along the map's outside edges, allow you to identify waypoints. Saving these waypoints in your personal GPS before you head out to the lake can save a lot of driving time and increase the amount of time spent fishing.

Creating a lake map involves detailed surveying, computer analysis, and extensive editing of the results. Since 1998, Division of Wildlife staff has been collecting geographically referenced depth data from a list of prioritized lakes in each wildlife district. Thousands of individual points are collected using a survey grade depth finder connected to a survey grade GPS while a biologist drives a boat along a series of transects from one end of the reservoir to the other. Areas with a lot of variation in depth, particularly the shoreline, are surveyed intensively to ensure that the new maps describe the area in as much detail as possible. Once survey data are collected, they are processed to develop depth contour lines and shoreline features.

After the lake contours are completed, other features such as roads, access, and facilities are added. Once the facilities and contours are reviewed by the lake manager, the new lake maps are printed and posted on the Division's Website. Currently, 31 lake maps have been updated and over 100 more updates will be completed over time. So log on to the Division's Website, find your favorite lake, and map your way to angling success this spring.