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THE CASE FOR A DRIFTLESS NATIONAL PARK

Marc J. Imlay *

In the Driftless Area of southeastern Minnesota, southwestern Wisconsin, northeastern Iowa and northwestern Illinois at least four likely endangered species of clams and snails still survive.

This is the famous Northern Area, about 150 miles in diameter, that the four recent ice ages did not significantly demolish with their great glacial drifts. Other than by visiting this spectacular northern area one must travel several hundred miles south to find areas with ancient dendritic patterned drainages, low mosquito counts, and tall conical outliers of deep valleys.

Cumberlandia monodonta, an endangered fresh-water mussel according to Stansbery (1971), commonly known as the Spectacle-Case, is the only species in an old genus. It appears to have more protein than other mussels in its shell composition and in fact all the museum specimens I have seen have developed cracks even though they were collected whole in the water.

Its ability to live in a very particular microhabitat (firm mud and quiet water because of its aforementioned fragile condition but very near rapid water because of high respiratory requirements) (Stansbery, 1967) is possibly why this anomaly is still with us today. *Cumberlandia monodonta* was found in the Driftless Area (Baker, 1928) at Prairie du Chien but otherwise is only found hundreds of miles further south. The Army Corps of Engineers, fortunately for this species, has decided to relocate 157 old buildings for flood control as an alternative to building a dam on the Mississippi River at Prairie du Chien.

Hendersonia occulta, according to Morrison (1929), a likely endangered flood plain snail in the Driftless Area, is another matter. Found in the Kickapoo Valley, this conspicuous red snail that was the original biological evidence of the Driftless Area, is threatened by a dam that will inundate a full third of the best part of the Kickapoo Valley. Commonly known as the "wild-cherrystone" snail, the rarity of this helicoid operculate was described by Morrison in 1929. It is now considered by Morrison (1972) as a species that may soon become endangered if it is not already. The northern existence of a helicoid is something of an anomaly anyway and such southern forms have been decreasing in northern areas.

On July 2, 1972, Dan Engstrom and I found *Hen-*

dersonia occulta in the upper reaches of the specific area to be inundated by the dam. This species was abundant on a slope under leaves in a dark sombre cave-like waterfall area known as Ice Cave located in the lower part of Wild Cat Mountain State Park. Low shrubbery on nonsandy soil was evidently also necessary.

Dan and I also found *Hendersonia occulta* that day at the east side of Devils Lake, Wisconsin, on a slope at the base of a talus fall, thus confirming an earlier find there by Morrison (personal communication). Situated at the edge of the Driftless Area, the spectacular valley of Devils Lake is a nonglaciaded remnant of the old bed of the Wisconsin River.

Found relatively near the water on woody, leafy ground, the snail was shielded from sunlight by the very large rocks of the talus slope. Again, low shrubbery on nonsandy soil was evidently also necessary.

Devils Lake is located at Devils Lake State Park, an intensive use recreation area.

Zonitoides limulatus was found by Dan Engstrom, John Satterlee, and myself in an area to be inundated by the Kickapoo Dam. Morrison considers this snail (personal communication) probably endangered and certainly a candidate for the watch list of species that may become endangered.

The known range of *Discus macclintocki* on the Earth "is an area about ten feet long and a foot wide at the mouth of a cave in Bixby State Park, Clayton County, Iowa" in the Driftless Area (Hubricht, 1972).

The Duluth, Minnesota Chapter of the Izaak Walton League of America has prepared a resolution (Eaton, 1972) which includes a statement that "the present program of producing wetlands with a few exceptions is more environmentally sound by the plugging of ditches for areas that were once wetlands than by the impoundment of creeks in areas that are naturally dry." It was pointed out as an example that if ever *Discus macclintocki* were thus flooded, it might be eliminated from the Earth. Just such a disaster has been uncovered recently by the Sierra Club in California (Roth, 1972) where the habitat of an endangered snail is threatened by "the management of marshland for the benefit of waterfowl."

There are undoubtedly many other relict species in the Driftless Area. Some of these are probably of strictly northern character and mostly as yet new (undescribed) species which will spread to the rest of the North during this present interglacial period of which only about 10,000 years have passed. The

*Bureau of Sport Fisheries & Wildlife, Office of Endangered Species, Washington, D. C. 20240

Driftless Area is a priceless preview of the future. This is what a far vaster area is predicted to be like prior to the next glacial period. The Driftless Area must be protected not only for its beauty (it is close in proximity, as a primitive undeveloped area, to major population centers), but also as the single "seed" area for the post glacial redistribution of these species. There is, in summary, a strong case for a Driftless national, state and/or local park system which would include portions of Minnesota, Wisconsin, Iowa and Illinois.

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