EUXENITE-(Y) (Y,Ca,Ce,U,Th)(Nb,Ta,Ti)₂O₆

A rare mineral of some pegmatites and rare-metal granites. Northern Peninsula.

Marquette County: A post-tectonic rare metalrich body of albite granite about 3.2 km south of Humboldt contains accessory cassiterite, thorite, ferrocolumbite, molybdenite, topaz, and fluorite (Hoffman, 1987; Schulz et al., 1988).

FROM: Robinson, G.W., 2004 Mineralogy of Michigan by E.W. Heinrich updated and revised: published by A.E. Seaman Mineral Museum, Houghton, MI, 252p.

UPDATE

Marquette County: Crockley pegmatite, section 22, T47N, R29W: As dark brown-black to yellowish brown, pitchy, metamict grains extracted from a heavy mineral concentrate. Wavelength dispersion electron microprobe analyses of selected grains yield formulas with Nb>Ta, consistent with euxenite-(Y), and heating to 1000°C for 24 hours recrystallizes the mineral sufficiently to give an X-ray diffraction pattern that matches well for a euxenite series mineral.

UPDATE FROM: Robinson, G.W., and Carlson, S.M., 2013, Mineralogy of Michigan Update: published online by A.E. Seaman Mineral Museum, Houghton, MI, 46p.