MANGANITE
Mn\(^{3+}\)O(OH)

A widespread and common manganese ore mineral formed both in low-temperature hydrothermal deposits and in deposits resulting from weathering and/or ground-water actions. Manganite is locally abundant in some of the iron formations of the Northern Peninsula, and world-class specimens have been found.

**Baraga County:** 1. *Taylor mine*, approximately 3.2 km north of Alberta, off old U.S. Highway 41: As bladed, lustrous, prismatic black crystals to 6 cm, associated with quartz in brecciated cherty iron formation (confirmed by X-ray diffraction) (Mihelicic, 1954). Pyrolusite (q.v.) also occurs at the Taylor mine, some of which may be pseudomorphous after manganite. The best way to differentiate the two is by X-ray diffraction, although, when sufficiently pure, manganite has a decidedly brownish streak when compared directly to the black streak of pyrolusite. 2. In banded iron formation, SE ¼ section 10, T51N, R32W: Cross-fiber needles up to 2.5 cm long.

**Gogebic County:** 1. Gogebic iron range, general: Crystals have been found in oxidized iron formation (Mann, 1953). 2. Penokee mine at Ironwood. 3. Geneva-Davis mine, 30 to 31st level: A 30 - kilogram “kidney” (Eddy, 1948). 4. *Newport mine* at Ironwood: In large groups of thick, bladed prismatic crystals to 3 cm in length, associated with goethite. 5. *Colby mine*, NE ¼
section 16, T47N, R46W: As lustrous prismatic crystals lining cavities in goethite.

**Houghton County:** Reported from the Wolverine mine, and as microcrystals in the Calumet and Hecla conglomerate (Wilson and Dyl, 1992).


**Keweenaw County:** 1. Manganese mine near Lake Manganese, about 1.6 km south of Copper Harbor in section 4, T58N, R26W: Occurs with other manganese species (e.g., braunite, orientite, macfallite) (Butler and Burbank, 1929). 2. Locality unspecified: A few small crystals in the Calumet and Hecla Conglomerate (may be in Houghton County, Butler and Burbank, 1929). 3. Ashbed mine.

**Marquette County:** 1. *Jackson mine* at Negaunee: In fine specimens of fibrous crystal aggregates with barite and gypsum, and as razor-sharp, lustrous black microcrystals several millimeters in length in cavities in quartz (Spiroff, 1940; Mann, 1953). 2. *Lucy (McComber)* mine at Negaunee: In superb specimens of sheaflike bundles of prismatic crystals several centimeters in length; and as plates of smaller black crystals up to 30 cm across associated with snow white barite rosettes (Hobbs, 1895a; Markert, 1960). 3. Tracy mine: Crystals 3 mm long with nacrite in a manganite-goethite bed in oxidized cherty iron formation (Bailey and Tyler, 1960). 4. Blueberry mine, Snowville near Diorite: With barite (Morris, 1983). 5. N ½ section 7, T47N, R26W: Veinlets and vug coatings in Negaunee Iron Formation (Gair, 1975).