FLUORAPOPHYLLITE
$KCa_4Si_8O_{20}(F,OH) \cdot 8\,H_2O$

Paragenetically, the apophyllite series minerals are closely allied to the zeolites, though they are not members of that group. In Michigan, fluorapophyllite is found solely in the Lake Superior copper district, where it is one of the latest minerals in cavities and fissures. Northern Peninsula.

Houghton County: Isle Royale mine (Wilson and Dyl, 1992).

Keweenaw County: 1. *Phoenix mine*: Clusters of colorless plates (Spiroff, 1938). Also as opaque gray bipyramidal crystals at the west vein mine.

Figure 77: *Fluorapophyllite crystals coating twinned crystals of native copper from the Phoenix mine, Phoenix, Keweenaw County. 3.5 x 3.5 cm. A. E. Seaman Mineral Museum specimen No. JTR 1702, Jeffrey Scovil photograph.*

Figure 76: *Fluorapophyllite crystals from the Phoenix mine, Phoenix, Keweenaw County. Largest crystal is 1.4 cm across. A. E. Seaman Mineral Museum specimen No. JTR 358, Debra Wilson photograph.*

2. *Cliff mine*: Clear, glassy tabular crystals, 0.5 to 1 cm long. Some are pseudo-octahedral. **3.** North American mine (Butler and Burbank, 1929). **4.** Robbins mine (Butler and Burbank, 1929). **5.** St. Clair mine (Hore and Allen, 1915; Butler and Burbank, 1929). **6.** Clark mine (Hore and Allen, 1915). Microcrystals up to 3 mm perched on microcline (Bee and Dagenhart, 1984). Colorless to white, equant to prismatic microcrystals with pyramidal terminations (Behnke, 1983). **7.** Prince vein: A foliated variety is found. It also occurs in large contorted plates (Whitney, 1859). **8.** *Copper Falls*: In cavities in basalt exposed in the bed of Owl Creek near the Owl Creek fissure mine, with prehnite, calcite, adularia, and quartz. **9.** Central mine: With analcime, natrolite, and datolite (Rominger, 1895). **10.** Allouez No. 1 mine: Flattened microcrystals in conglomerate (Yedlin, 1974).