

From the Mineral Inventory Files

The Pogue Lake Garnet Schists

Garnet has valuable industrial applications, garnet-coated sandpaper is an example, but the mineral is also prized as a semi-precious gemstone. There are a few places in Nova Scotia's Meguma Terrane where garnet is found in abundance. One such location stands out: the Pogue Lake area about 40 km north of Sheet Harbour and off the road that leads from Dean to Trafalgar (Fig. 1).

Garnet is typically found in highly metamorphosed rocks (schists) that were originally clay and mudstone (pelites), with a high content of Al, Fe, and Mn. In the Pogue Lake area not only is the amount of garnet in the schists significant (~20-25%; Fig. 2A), the garnets also reach impressive sizes (up to 1-3cm; Fig.2B). Figure 1 shows the lumber road that runs along the east side of Pogue Lake. Just east of that road is a knoll with sporadic outcrops of schist and a blanket of abundant boulders; both outcrops and boulders carry abundant garnet.

It is believed that the garnet schists here are highly metamorphosed units of the pelitic Beaverbank Formation, the uppermost unit of the Goldenville Group (Fig. 1). The Goldenville and Halifax groups constitute the Meguma Supergroup, which underlies much of the province's Eastern Shore. Meguma rocks in this area have been intruded by a suite of mafic-granitic plutons known as the Trafalgar Plutonic Suite. Contact metamorphism related to these intrusions has recrystallized Beaverbank Formation Fe-Mn-Al-rich pelitic units into garnet schists. In addition, some of the plutonic rocks, most notably the dioritic-tonalitic Bog Island Lake Pluton, have ingested a considerable amount of pelite. This contamination has resulted in portions of the pluton, particularly near its borders, having crystallized abundant and large garnets (Fig. 2B).

Garnet-rich areas such as Pogue Lake may have the potential to produce garnet for the abrasives market. A bulk sample test is warranted. In addition, even though garnet is prone to being riddled with inclusions, the area has potential for mineral and gem collectors. Collectors

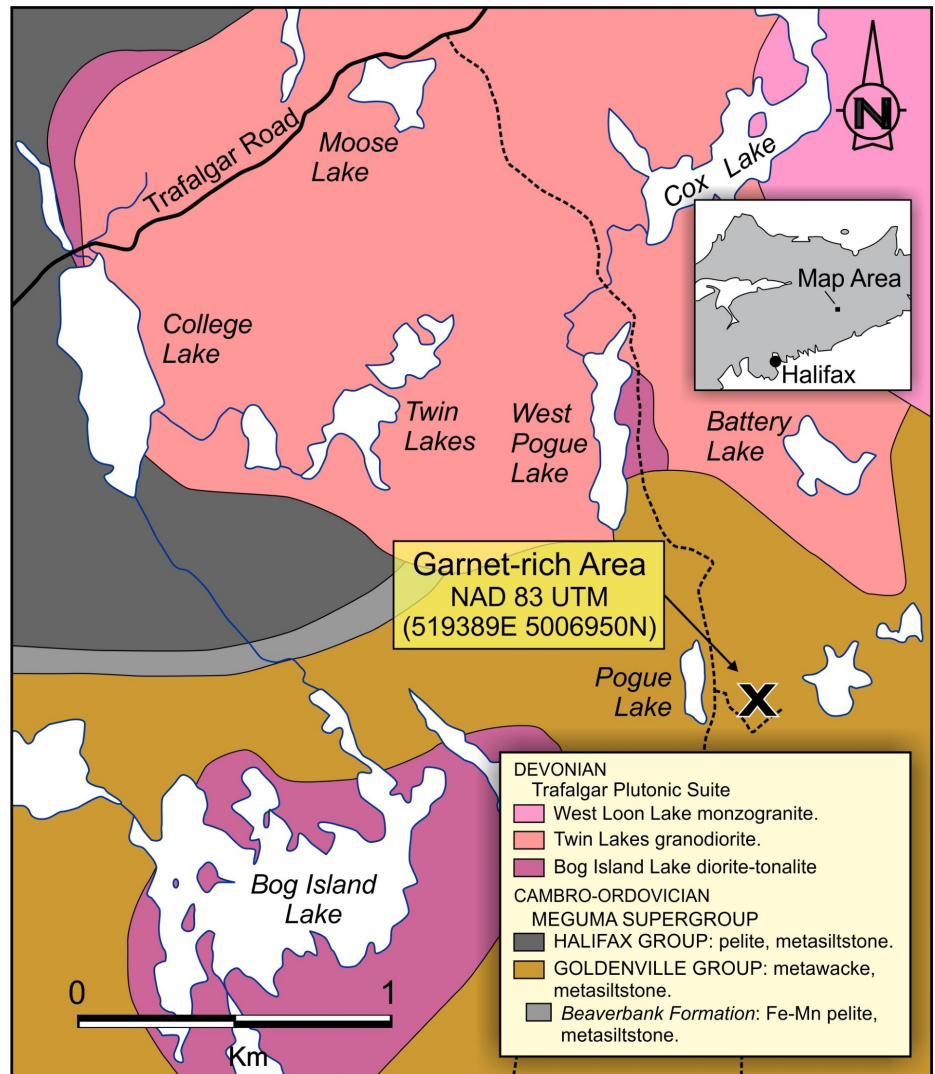


Figure 1. Geology of the Pogue Lake area, Halifax County, showing the location of a garnet schist outcrop and boulder cluster.



Figure 2. A. Photo of typical garnet schist found in the Pogue Lake area. B. Photo of an outcrop of the Bog Island Lake Pluton with large garnets (photo B by Chris White).

are sure to find impressive specimens. Whether or not inclusion-free, gem-quality crystals are present remains to

be seen, but it's worth a look.

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