EXAMPLE ABSTRACT AGS 2014

Carboniferous volcanic and sedimentary rocks of the Lorneville Group, southern New Brunswick

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Interbedded volcanic and sedimentary rocks located south of and in faulted contact with Proterozoic and Cambrian rocks in the vicinity of the city of Saint John are termed the Lorneville Group and subdivded into the Taylors Island Formation (West Saint John, Taylors Island, and Lorneville areas) and West Beach Formation (east Saint John, Red Head area, West Beach area, and outliers to the east along the Bay of Fundy coast). Although traditionally termed the Mispec (or Mispek) Series (or Group) and assumed to be Carboniferous, the lack of direct age constraints and uncertain stratigraphic relations led to a wide age range assignment (Neoproterozoic to Carboniferous) on recent maps. A sample from thin rhyolite layers interbedded with basaltic flows at Sheldon Point in West Saint John yielded a U-Pb (zircon) age of 358.9 +5.8/-5.2 Ma, and confirms that at least the Taylors Island Formation is Late Devonian-Early Carboniferous. Petrological similarities indicate that all of the basaltic rocks of the Taylors Island and West Beach formations are of similar age and formed in a continental within-plate tectonic setting. In the Lorneville/Coleson Cove area, basalt and sedimentary rocks of the Taylors Island Formation are increasingly deformed and mylonitic to the south, and tectonically interlayered with variably mylonitic granitoid rocks, including aegirine-bearing alkali-feldspar granite with A-type chemical affinity and a Carboniferous U-Pb (zircon) age of 346.4 ± 0.7 Ma. Also present in the area are variably mylonitized and tectonically interlayered metasedimentary rocks and leucotonalite of uncertain age. The latter rocks can be traced through Partridge Island to the Red Head area where together with the West Beach Formation, they occupy a thrust sheet above red conglomerate-sandstone-mudstone of the mid-Carboniferous Balls Lake Formation. Deformation was likely a result of dextral transpression along the Cobequid-Chedabucto Fault Zone during accretion of the Meguma terrane.

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- 400 word limit in body of text
- Only e-mail address of main presenter/contact person is required
- No references or figures in text