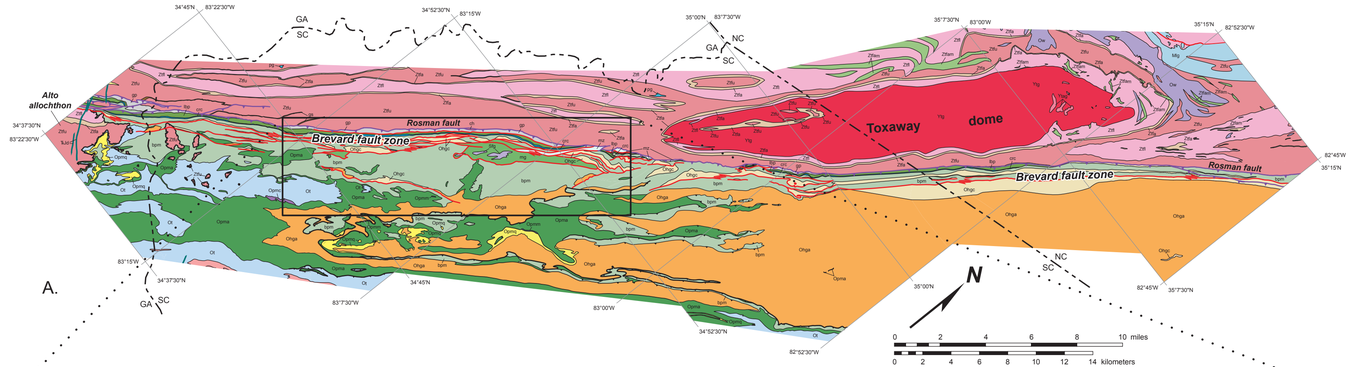
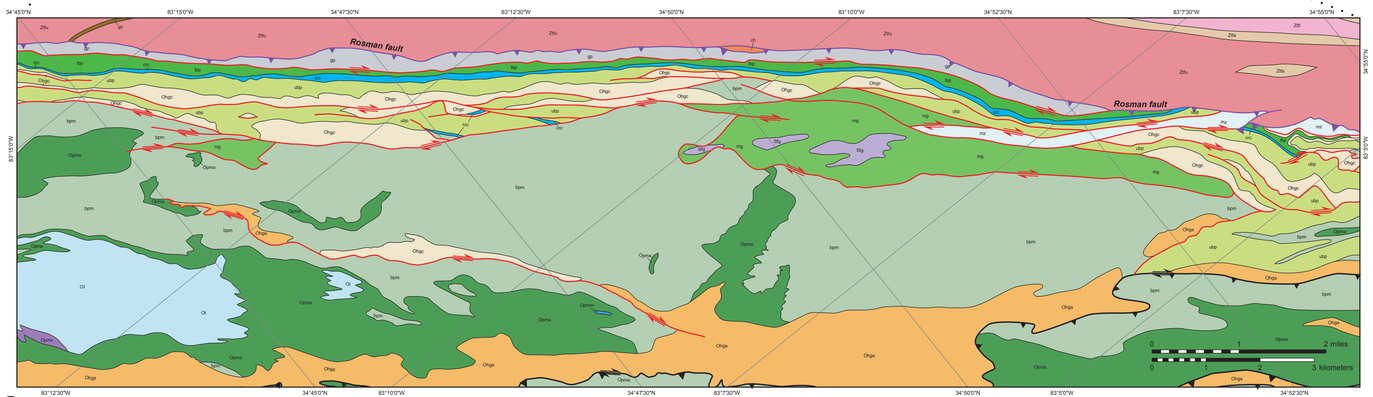


A.



B.

Explanation

This plate accompanies R.D. Hatcher Jr. et al., "Geologic and kinematic insights from far-traveled horses in the Brevard fault zone, southern Appalachians" (Chapter 13).

Contacts and Faults

- Contact
- Late Alleghanian (~260 Ma) Rosman thrust fault
- Early Alleghanian (~280 Ma) Brevard fault zone dextral strike-slip fault
- Thrust and dextral strike-slip fault

Early Jurassic

- Jd — Diabase dike

Western Tugaloo terrane

Eastern Blue Ridge

Tallulah Falls Formation (Neoproterozoic or Cambrian)

- Ztfu — Tallulah Falls Formation (upper)
- ts — Garnetiferous muscovite schist
- Ztfa — Aluminous schist
- Ztfam — Amphibolite
- Ztfl — Tallulah Falls Formation (lower)

Middle Proterozoic basement

- Ytag — Toxaway augen gneiss (~1.15 Ga)
- Ytg — Toxaway Gneiss (banded) (~1.15 Ga)

Plutonic Units

- pg — Pegmatite
- Mlg — Looking Glass granodiorite (337 Ma)
- Ow — Whiteside Granite (trondhjemite) (466 Ma)

Eastern Tugaloo terrane

Chauga belt (western Inner Piedmont)

Brevard fault zone

Carbonate Horses

- ch — Carbonate horses (Cambrian-Ordovician platform protolith?)
- mz — Mylonite zone

Poor Mountain Formation (Middle Ordovician)

- Opmm — Poor Mountain Marble Member
- Opmq — Poor Mountain Quartzite and felsic tuff member (459 Ma)
- Opma — Cedar Creek Amphibolite Member

Chauga River Formation (Brevard fault zone; Neoproterozoic or Cambrian)

- ubp — Upper Brevard chlorite-muscovite phyllonite
- crc — Chauga River Carbonate
- bpm — Chauga River phyllonitic metasiltstone
- lbp — Lower Brevard chlorite-muscovite phyllonite
- gp — Graphitic phyllonite, quartzite, chlorite-muscovite phyllonite, all mylonitized

Crystalline Rocks Horses (Peri-Gondwanan source)

- Sfg — Felsic gneiss (430 Ma)
- mg — Mylonite gneiss

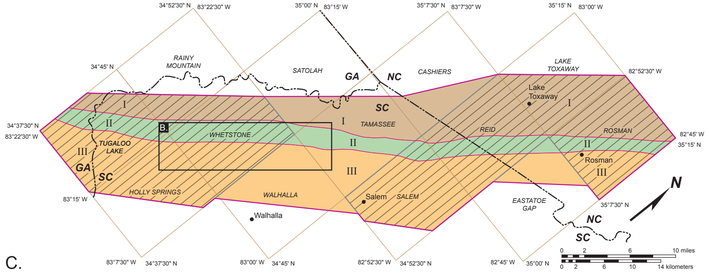
Plutonic Rocks

- Opmc — Contact metamorphic zone
- Ot — Toccoa granitic gneiss (449 ± 4 Ma)

Henderson Gneiss

- Ohgc — Henderson mylonitic gneiss (450 Ma, mylonitized ~280 Ma)
- Ohga — Henderson augen gneiss (450 Ma)

Sources of data



C.

Plate 1. (A) Detailed geologic map of the Brevard fault zone from northeastern Georgia across South Carolina, and into southwestern North Carolina, with an enlargement (B) of the area in the rectangle in (A). (C) Index map for sources of data used in the compilation: Tugaloo Lake, Rainy Mountain, Whetstone, and Holly Springs 7.5-minute quadrangles—Hatcher (2000), Hatcher (2001b), Hatcher and Liu (2001), Hatcher et al. (2001). Satolah, Eastatoe Gap, and Cashiers quadrangles—Robert D. Hatcher, Jr., unpub. data. Tamassee quadrangle— Louis L. Acker and Robert D. Hatcher, Jr., unpub. data; Hatcher (1977); Hatcher et al. (2004). Walhalla quadrangle—Griffin (1974). Salem quadrangle—Hatcher and Acker (1984). Reid quadrangle—Robert D. Hatcher, Jr., Mark W. Carter, and Mark Hartford, unpub. data. Lake Toxaway quadrangle—Varnell-Jubb (2010). Rosman quadrangle—Horton (1982).