

Figure 10. Generalized geologic map of San Luis complex in relation to Cochetopa Park caldera, showing present-day caldera margins (unconformities between precaldera and caldera-fill rocks; thick colored lines, dotted where concealed) and inferred topographic rim of Cochetopa Park caldera. Modified from Lipman (2006, fig. 3). Caldera of the San Luis complex: CC, Cebolla Creek; NM, Nelson Mountain; RC, Raft Creek; Tc, Fish Canyon Tuff; PCT, clasts of Fish Canyon Tuff in caldera-margin landslide deposits. Geographic names: BC, Baldy Cinco; CD, Cochetopa Dome; MM, Mesa Mountain; MM, Mineral Mountain; NP, North Pass; RCD, Razor Creek Dome; SAp, Saguache Park; SL, San Luis Peak; SP, Stewart Peak; STM, Sawtooth Mountain; C.D., Continental Divide.

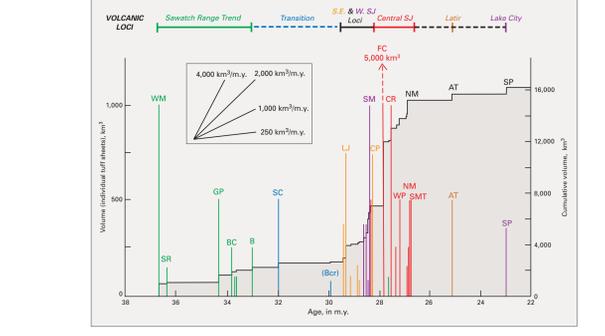


Figure 7. Age-distribution plot, showing southward progression of Tertiary ignimbrite-caldera volcanism in the Southern Rocky Mountain volcanic field. Ignimbrite abbreviations: AT, Anasazi Tuff; B, Bonanza Tuff; BC, Badger Creek Tuff; BT, rhyolite of Barret Creek; BW, flow field; CP, Chiquito Peak Tuff; CR, Carpenter Ridge Tuff; FC, Fish Canyon Tuff; GP, Grizzly Peak Tuff; L, La Jara Canyon Tuff; NM, Nelson Mountain Tuff; SC, Saguache Creek Tuff; SM, Sapinero Mesa Tuff; SMT, Sawtooth Mountain Tuff; SP, Sunshine Peak Tuff; SR, tuff of Stirrup Ranch; WM, Wall Mountain Tuff; WP, Wason Park Tuff; SJ, San Juan.

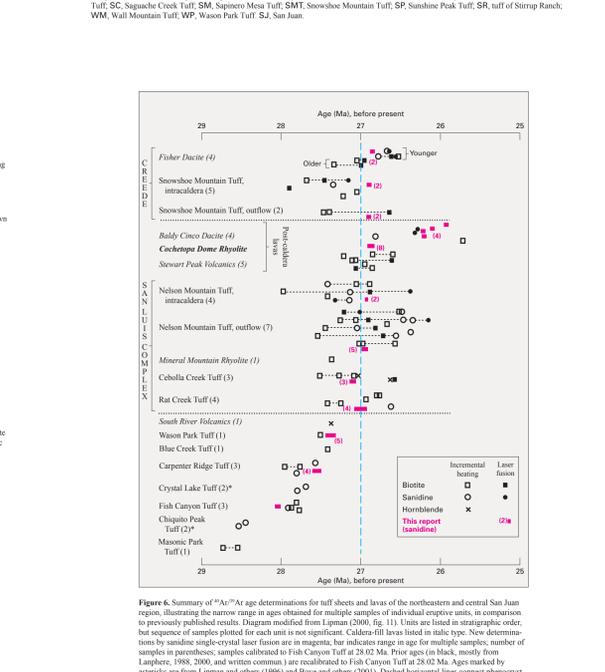


Figure 6. Summary of "Ar" age determinations for tuff sheets and lavas of the northeastern and central San Juan region, illustrating the narrow range in ages obtained for multiple samples of individual eruptive units, in comparison to previously published results. Diagram modified from Lipman (2006, fig. 1). Units are listed in stratigraphic order, but sequence of samples plotted for each unit is not significant. Caldera-fill lavas listed in italic type. New determinations by single-crystal laser fusion are in magenta, but indicate range in age for multiple samples; number of samples in parentheses; samples calibrated to Fish Canyon Tuff at 28.02 Ma. Prior ages in black, mostly from Langhorne, 1988, 2000, and written common are recalculated to Fish Canyon Tuff at 28.02 Ma. Ages marked by asterisks are from Lipman and others (1990) and those by others (2001). Dashed horizontal lines connect phenocryst phases from single samples; numbers of separately sampled localities analyzed for each unit are listed in parentheses. Dashed vertical line (blue) at 27 Ma provides visual guide for rapid sequence of eruptive events during San Luis-Cochetopa and Cochetopa caldera cycles, as documented by the new sandstone age determinations (magenta).

