Generalized Stratigraphy and Corresponding Taphonomic Hypotheses for the Permian Phosphoria and Park City Formations of the Northern Rocky Mountains

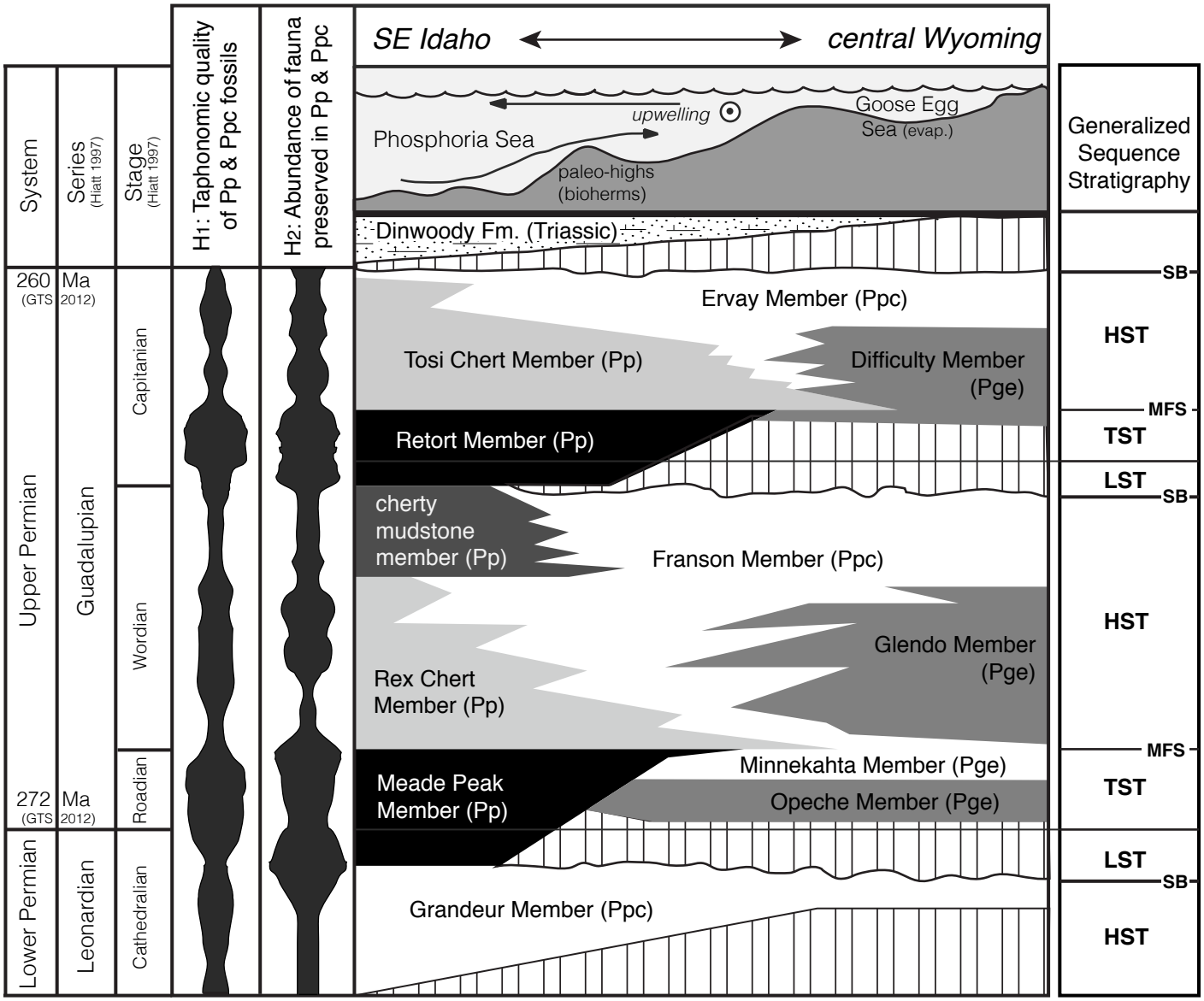

Figure 1. Generalized stratigraphy of the Permian Phosphoria Formation (Pp), Park City Formation (Ppc), and Goose Egg Formation (Pge); vertical lines denote hiatuses; total thickness of Phosphoria Fm. ranges from ~90-300 m (lithostratigraphic schematic modified from Maughan, 1984, and Hiatt & Budd, 2003). Top panel depicts idealized cross-section of the paleo-shelf topography that experienced coastal upwelling. Spindles at left show some of the author's corresponding taphonomic hypotheses, with thinner parts indicating poorer preservational quality (H_1) or fewer fossils present (H_2), respectively (N.B. hiatal surfaces often coincide with abundant fossil preservation of poorer taphonomic quality; variation in sections with cherts due to lenses of carbonate bioherms). Sequence stratigraphic interpretation at right modified from Hiatt (1997) and author's own observations; LST = lowstand systems tract; TST = transgressive systems tract; HST = highstand systems tract; SB = sequence boundary; MFS = maximum flooding surface.