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Islands in the sky : species diversity, evolutionary history, and patterns of endemism of the Pantepui Herpetofauna

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GLOSSARY OF GEOLOGICAL TERMS

Archean: Geologic eon before the Proterozoic, *ca.* 2,500–3,800 million years ago.

Cenozoic: Geologic era covering *ca.* 65.5 million years ago to present.

Craton: Old and stable portion of the continental lithosphere (lithosphere = rigid outermost shell of the planet).

Cretaceous: Geologic period, *ca.* 65.5–145.5 million years ago.

Denudation: The long-term sum of processes leading to a reduction of landscapes elevation.

Diabase: Subvolcanic rock.

Diagenesis (diagenetic processes): The process of chemical, physical or biological change (exclusive of weathering and metamorphism) undergone by sediments at relatively low temperatures and pressures after their initial deposition and during and after their conversion to rock (lithification).

Diastrophism: Deformation process of the earth's crust leading to the formation of continents, mountains, folds, faults, etc.

Dike (or dyke): Discordant intrusion of igneous rock cutting vertically (or almost) through and across strata (note: some dikes may be of sedimentary origin).

Edaphic: Related to soil.

Eocene: Geologic epoch, *ca.* 55.8–33.9 million years ago.

Epeirogeny (epeirogenic movements): Broad regional vertical movement (uplift or depression) of earth's crust exhibiting little folding and resulting in only mild deformation.

Erosion: Natural process by which soil and rock are removed from earth's surface by wind and water flow.

Holocene: Geologic epoch, covering *ca.* 11,700 years ago to present.

Igneous rocks: Rocks formed from the solidification of molten rock material. Igneous rock can be intrusive (solidifying below earth's surface) or extrusive (solidifying on or above earth's surface).

Intrusion: Any formation of intrusive igneous rock (*e.g.* magma cooling and solidifying within earth's crust).

Isostasy (isostatic rebound): Gravitational equilibrium between the earth's lithosphere (rigid outermost shell of the planet) and asthenosphere (highly viscous region of the upper mantle of earth lying below the lithosphere).

Jurassic: Geologic period, *ca.* 199.6–145.5 million years ago.

Kaolinite: A layered silicate mineral.

Karst: Topography largely shaped by the dissolving action of water on soluble bedrock.

K-T boundary: The Cretaceous (K)-Tertiary (T) boundary (now better known as the Cretaceous-Paleogene boundary) is a geological signature associated to a mass extinction and marks the end of the non-avian dinosaurs.

Mesoproterozoic: Geologic era, *ca.* 1,000–1,600 million years ago.

Mesozoic: Geologic era, *ca.* 251–65.5 million years ago.

Metamorphic (rock): Altered in texture, composition, or internal structure by extreme heat, pressure, and chemically active fluids.

Miocene: Geologic epoch, *ca.* 23.03–5.33 million years ago.

Mya: Million years ago.

Myr: Million years old.

Neogene: Geologic period, *ca.* 23.03–1.81 million years ago.

Oligocene: Geologic epoch, *ca.* 33.9–23.03 million years ago.

Orogeny: Processes of structural deformation of the earth's lithosphere (rigid outermost shell of the planet) due to the engagement of tectonic plates; primary mechanism by which mountains are built.

Paleocene: Geologic epoch, *ca.* 65.5–55.8 million years ago.

Paleogene: Geologic period, *ca.* 65.5–23.03 million years ago.

Paleozoic: Geologic era, *ca.* 542–251 million years ago.

Pirophyllite (or Pyrophyllite): A layered silicate mineral.

Pleistocene: Geologic epoch, *ca.* 2.58 million years ago to 11,700 years ago.

Pliocene: Geologic epoch, *ca.* 5.33–2.58 million years ago.

Precambrian: Geologic time prior to *ca.* 542 million years ago.

Proterozoic: Geologic eon following the Archean, *ca.* 542–2,500 million years ago.

Quaternary: Geologic period, covering *ca.* 2.58 million years ago to present.

Sedimentation: Accumulation of sediment in layers.

Shale: Fine grained sedimentary rock that splits easily.

Sill: Tabular intrusion of igneous rock, usually fed by dikes.

Stratigraphic: Related to rock strata.

Subsidence: Opposite of uplift, sinking of earth's surface in response to geologic or man-induced cause.

Tertiary: Deprecated geologic time, *ca.* 65.5–2.58 million years ago.

Triassic: Geologic period, *ca.* 251–199.6 million years ago.

Tuff: Relatively soft, porous rock composed of compacted volcanic ash or dust.

U-Pb analyses: Uranium-lead dating.

Weathering: Process that produces change in the surface of rock through contact with earth's atmosphere, biota and water. Weathering occurs *in situ* with no movement unlike erosion, which involves displacement of rocks and minerals by water, wind, etc.