[Limits to Speciation Inferred from Times to Secondary Sympatry and Ages of Hybridizing Species along a Latitudinal Gradient. (utoronto.ca)](https://www.utsc.utoronto.ca/~jweir/publications/reprints/Weir_&_Price_2011_AM_NAT_2.pdf)

Barriers in the tropics may function for longer periods of time or may be less permeable and may thereby limit rates of secondary sympatry. Key Neotropical barriers for lowland tropical forest species—for example, the Andean cordilleras and wide Amazonian rivers—have operated as barriers to birds for millions of years (Sick 1967; Capparela 1991; Marks et al. 2002; Aleixo 2004; Rossetti et al. 2005; Burney and Brumfield 2009). In contrast, key barriers at high latitudes, such as the Pliocene and Pleistocene ice sheets, repeatedly bisected temperate birds and other groups into multiple refugia (e.g., Weir and Schluter 2004). Species ranges presumably have had more opportunity to come back into secondary contact, given the shorter time periods during which high-latitude barriers operated. In support of this, we find that a higher proportion of the deepest splits within zoogeographic sister taxa are parapatric at high latitudes (58%) than in the tropics (34%).

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