

Figure 1: The geographical range shift of the Golden Winged Warbler. Range margins from the early 1970's are black and exclude the South March Highlands region. The range margins from 2001-2005 are shown in red and include the South March Highlands. The range margins are drawn using minimum convex polygons around known observation points from the freely available Breeding Bird Survey data. Separately, it is known that this warbler had not arrived in the region by 1985 (Cadman 1987), so changes in this species' distribution occurred between then and 2000. The underlying environmental conditions from the initial environmental impact assessment, and the 2005 and 2007 updates, do not mention this difference. Many other bird species show exactly the same pattern (data available on request), as do butterfly data. This pattern is general, not specific to one species: in terms of species-level differences in this area, change rates have been substantial.