Juniper Hairstreak (*Callophrys gryneus*)

**Butterfly Species of Concern**

**State Rank:** S2S4 (imperiled/apparently secure), **Global Rank:** G5 (secure)

**Identification**
The Juniper Hairstreak is a tiny bright-green butterfly with rusty-brown stripes edged in white. These colors help the butterfly blend in with the eastern red-cedars (*Juniperus virginiana*) with which it is closely associated. This species is found throughout central and south-central Pennsylvania, and they do especially well in southeastern Pennsylvania in the Susquehanna Valley.

**Habitat**
Juniper Hairstreaks prefer hilly, open, old field habitats with small to mid-sized red-cedars. Old fields that are not too overgrown typically support a variety of nectar sources that the adults need such as milkweed, clover, and wild carrot. Juniper Hairstreaks spend much of their time around red cedars (also known as junipers). Males perch among the red-cedars waiting for females. The females lay eggs on the tips of red-cedar needles, upon which the larvae feed.

The larvae are camouflaged with bumpy green skin and horizontal whitish ‘broken-dash’ stripes that run the length of their body. This pattern mimics the way light reflects off the scales of the cedar leaves. Two broods (generations) are completed each year. The first brood of adults fly April-May, and the second brood fly July-August. By September-October, the mature larvae move into soil and debris and overwinter as pupae.

**North American State/Province Conservation Status**

Map by NatureServe (2007)

- **Status**
In Pennsylvania, the species is considered to be an S2S4, which means the status of the species is in question. There is evidence that the species is in decline, though it is still doing well in some areas of the state. This species is also rather cryptic and even when in appropriate habitat, it may be necessary to ‘beat the bushes’ to get these tiny gems to fly. Additional survey work is needed to determine the status of this species.

**Conservation**
Loss of habitat to succession is a threat to this species. Increasingly, agricultural practices do not allow old fields to develop. At the same time, lands that are not farmed or developed are succeeding into forest. As this happens, the habitat becomes unsuitable for this species. Active management for open old field habitat in areas where the Juniper Hairstreak is known to occur would be beneficial for the species.

**References**
- Pennsylvania Natural Heritage Program. 2007.