**Rhinolophus blasii** – Peak-saddle Horseshoe Bat

**Assessment Rationale**

This species has a very wide distribution globally occurring in the Palaearctic and the Afrotropics. Within the assessment region it has an extent of occurrence (EOO) of 139,615 km². It is a rarely recorded, difficult to sample species with small subpopulations. Moreover, the species is severely fragmented with an overall suspected regional population of fewer than 2,000 individuals. There is no evidence of decline, therefore the species is listed as Near Threatened under the D1 criterion.

**Regional population effects:** As it is a short-winged species that is unable to disperse large distance it is unlikely to be experiencing immigration from neighbouring countries.

**Distribution**

The Peak-saddle Horseshoe Bat has a large range in the Palaearctic and the Afrotropics, throughout which it is widely but patchily distributed. In southern Africa, it occurs form northeastern South Africa and Swaziland, through Zimbabwe, Botswana and Mozambique. Its range extends through southern Malawi to East Africa, the Democratic Republic of the Congo, Somalia, Ethiopia and into North Africa. Altitude range is from sea level to 1,200 m.

The subspecies *R. b. empusa* is mostly restricted to southern Africa, including Malawi and Zambia, occurring marginally beyond in the eastern DRC (Csorba et al. 2003) and Tanzania (Kock & Howell 1988). Regionally, it occurs in Swaziland (Monadjem 2005), Zimbabwe (Cotterill 1996), and there are isolated records from central and northern Mozambique (Monadjem et al. 2010) (Table 1). Within the assessment region, specifically, it occurs in Limpopo, Mpumalanga, and KwaZulu-Natal provinces of South Africa (Figure 1). Within Kruger National Park, it occurs in the Pafuri region. Historical records also exist from Gauteng Province, but it has not been collected there since 1956. It is widely but sparsely distributed in the eastern parts of the region. The southern African subspecies is not well represented in museums, with just over 60 specimens examined in Monadjem et al. (2010).

The EOO within the assessment region, based on known recorded colonies, is 139,615 km².

**Population**

In Africa, the species is not very common. Within the assessment region, it is rarely captured. However, this may be due to it having many small subpopulations. The overall population in the region is suspected to be low. It does not typically roost in large caves but prefers small caves, and mine adits where it is difficult to sample. There are only a small number of roost sites within the assessment region. Friedmann and Daly (2004) counted only four or five roosts. However, based on current distribution records (Figure 1), there are only between 20 and 30 major cave roosting sites within the assessment region, which we construe as separate subpopulations.
Rhinolophus blasii

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Figure 1. Distribution records for Peak-saddle Horseshoe Bat (Rhinolophus blasii) within the assessment region

Table 1. Countries of occurrence within southern Africa

<table>
<thead>
<tr>
<th>Country</th>
<th>Presence</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>Extant</td>
<td>Native</td>
</tr>
<tr>
<td>Lesotho</td>
<td>Absent</td>
<td>-</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Extant</td>
<td>Native</td>
</tr>
<tr>
<td>Namibia</td>
<td>Absent</td>
<td>-</td>
</tr>
<tr>
<td>South Africa</td>
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<td>Native</td>
</tr>
<tr>
<td>Swaziland</td>
<td>Extant</td>
<td>Native</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Extant</td>
<td>Native</td>
</tr>
</tbody>
</table>

There are thus suspected to be between 200 and 3,000 individuals in total.

Current population trend: Suspected to be stable.

Continuing decline in mature individuals: No

Number of mature individuals in population: < 2,000

Number of mature individuals in largest subpopulation: 100

Number of subpopulations: 20–30

Severely fragmented: No

Habitats and Ecology

In southern Africa, Peak-saddle Horseshoe Bats occur in savannah woodlands and are dependent on the availability of daylight roosting sites such as caves, mine adits or boulder piles (Skinner & Chimimba 2005). They are not always present in cave sites, which suggests that are partially migratory (Rautenbach 1982), but see Hutterer et al. (2005). Within the assessment region, the species is recorded from dolomitic geology and occurs in the Mopane Bioregion, Central Bushveld, Mesic Highveld Grassland.

They occur in groups of no more than three or four (Rautenbach 1982; Monadjem 2005; Skinner & Chimimba 2005). In Swaziland, they shared a roost (an abandoned gold mine) with several other bat species, including the numerically dominant R. clivosus (Monadjem 2005). It is a clutter forager and aerially hawks and gleans insect prey (Siemers & Ivanova 2004). Its diet consists mainly of Lepidoptera (Schoeman 2006).

This species is similar in size and appearance to several other species (R. simulator, R. landeri and R. darlingi) but can be separated from these by the high-rising, sharply pointed connecting process and the absence of axillary tufts of hair in the armpit (Monadjem et al. 2010).

Use and Trade

Not known to be traded.

Threats

The major threat to this species within the assessment region is disturbance by tourist visits to caves, the use of the caves as shelters for livestock (ACR 2013), and the use of caves for traditional ceremonies by local communities. Re-commissioning of old mines is also a threat (Monadjem et al. 2010). Logging for firewood from
local communities and deforestation is thus also suspected to be a threat. Afforestation is not suspected to be a major threat as they can utilise plantations. Climate change is a potential minor threat for bats (Sherwin et al. 2013), as it may reduce tree-cover and thus roosting and foraging sites, as well as fragmenting subpopulations.

It is unknown whether these threats are currently causing the population to decline within the assessment region.

Current habitat trend: Although EOO is not expected to decrease, habitat quality may be impacted by expanding human settlements. For example, in the eastern part of the Soutpansberg Mountain range, wood collection, plantation forestry and settlement expansion between 1990 and 2006 caused an observed reduction of 20% in indigenous forest and woodland cover (Munyati & Kabanda 2009).

Conservation

Protection of caves and monitoring of subpopulations is required. In the assessment region, the species is recorded from the protected areas: Kruger National Park; Wonderkop Nature Reserve; Cradle of Humankind Heritage Site and Ithala Game Reserve. No specific interventions are necessary at present.

Recommendations for land managers and practitioners: Field surveys to discover new roost sites and confirm occupancy of existing roost sites.

Research priorities: Taxonomic research is needed to clarify the status of the African populations.

Encouraged citizen actions: Minimise disturbance to caves when visiting.

References


Sherwin et al. 2013. Bats of the Soutpansberg: the conservation status of the Peak saddle Horseshoe Bat (Rhinolophus blasii) ranked in order of effectiveness with corresponding evidence (based on IUCN action categories, with regional context)

Data Sources and Quality

Table 4. Information and interpretation qualifiers for the Peak-saddle Horseshoe Bat (Rhinolophus blasii) assessment

<table>
<thead>
<tr>
<th>Data sources</th>
<th>Field study (unpublished), indirect information (literature, expert knowledge)</th>
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<tr>
<td>Data quality (max)</td>
<td>Inferred</td>
</tr>
<tr>
<td>Data quality (min)</td>
<td>Suspected</td>
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<tr>
<td>Uncertainty resolution</td>
<td>Expert consensus</td>
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<tr>
<td>Risk tolerance</td>
<td>Precautionary</td>
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The Red List of Mammals of South Africa, Lesotho and Swaziland


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Details of the methods used to make this assessment can be found in Mammal Red List 2016: Introduction and Methodology.