



Redescription of *Rhodostrophia lenis* Wiltshire 1966 and *R. vartianae* Wiltshire, 1966, with new distributional data (Lepidoptera, Geometridae, Sterrhinae)

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The geometrid moth genus *Rhodostrophia* Hübner, 1823 belongs to the subfamily Sterrhinae, which presently contains 73 species (Parsons et al. 1999, Sihvonen & Nupponen 2005, Trusch & Hausmann 2007). The genus ranges from Europe, North Africa and the Arabian Peninsula to Taiwan, with focal diversity in western and central Asia; three species occur in Chile (Trusch & Hausmann 2007). Diagnostic characters for *Rhodostrophia* include: forewing with double areole (cf. fig. 11), R2–R4 stalked, R5 from apex of second areole; hindwing with Rs and M1 stalked, M3 and CuA1 usually separate; long quadripectinate male antenna with four thin branches arising from each flagellomer (pectinations reaching antennal tip); frons slightly convex, length of palpi equal to or slightly exceeding diameter of eye (Hausmann 2004; venation terminology after Scoble 1995).

In the course of an inventory of the Geometridae of Iran, notably *Lithostege* Hübner [1825], in several collections we located female *Rhodostrophia* similar to species of *Lithostege*, but which could not be identified in the absence of males. We subsequently received a freshly collected pair of this *Rhodostrophia*, and genitalic characters placed it in the ‘badiaria species-group’ sensu Hausmann (2004), which includes *R. badiaria* (Freyer, 1841), *R. bahara* Brandt, 1938, *R. vastaria* (Christoph, 1877), *R. tabestana* (Trusch & Hausmann, 2007) and, tentatively, *R. tumulosa* Brandt, 1938, *R. iranica* Schwingenschuss, 1939 (raised to specific rank by Doganlar & Hausmann 2003: 317), and *R. abscisaria* Brandt 1941. The identification of our material as *R. lenis* Wiltshire, 1966 was difficult since the description and especially drawings in the original publication are problematic. To assist further work on this group, we redescribe the two species of *Rhodostrophia* mentioned by Wiltshire, provide photos of the male and female genitalia, and give further information about the occurrence of both species.

Material was examined from the following collections (institutional codens follow Evenhuis & Samuelson 2007): HMIM, Hayk Mirzayans Insect Museum, Iranian Research Institute of Plant Protection (former Plant Pests & Diseases Research Institute, PPDRI), Tehran, Iran; SMNK, State Museum of Natural History, Karlsruhe, Germany; ZSM, Zoological State Collection, Munich, Germany; NHMW, Museum of Natural History, Vienna, Austria; H. R., Hossein Rajaei. Geographic names follow the Road Map of Iran (Gitashenasi, Geographical & Cartographic Institute, 2005; <http://www.gitashenasi.com>).

Rhodostrophia lenis Wiltshire, 1966

(p. 134, figs. 31, 35)

Material examined (see Map 1). Holotype ♂ (examined), ‘Afgh[anistan] | Khurd-Kabul SO | v. Kabul, 1900m | 18.VI.1965 | Kasy & Vartian’, ‘Mus. Vind. | Gen. Präp. | 15.941 | ♂’, ‘Preparation | WW. 195’, ‘*Rhodostrophia* | *lenis* Wiltsh. ♂ | Holotypus’. Paratypes (6 ♀ 1 ♂ examined): 1 ♀, ‘Afgh[anistan] | Khurd-Kabul SO | v. Kabul, 1900m | 18.VI.1965 | Kasy & Vartian’, ‘*Rhodostrophia* | *lenis* Wiltsh. ♀ | Allotypus’, ‘Paratype | *Rhodostrophia lenis* Wiltshire | det. H. R., 2009’, ‘prep. | 1532/2011 | H. R.’; 4 ♀, same locality, ‘Paratypoid | *Rhodostrophia* | *lenis* Wiltshire 1967 [1966]’, ‘Paratype | *Rhodostrophia lenis* Wiltshire | det. H. R., 2009’; 1 ♂, same locality, ‘Paratypoid | *Rhodostrophia* | *lenis* Wiltshire, 1967 [1966]’, ‘Paratype | *Rhodostrophia lenis* Wiltshire | det. H. R., 2009’, ‘prep. | 1534/2011 | H. R.’; 1 ♂, ‘40 km SW | v. Kabul | 2300m, Afghan[istan] | 17.6.1965 | Kasy & Vartian’, ‘Paratypoid *Rhodostrophia* | *lenis* Wiltshire, 1967 [1966]’, ‘Paratype | *Rhodostrophia lenis* Wiltshire | det. H. R., 2009’; all in NHMW. New material from