



New records of the As Sareen Semaphore Gecko (*Pristurus assareen*, Gekkota: Sphaerodactylidae) provide novel insights into the distribution of this microendemic Critically Endangered species

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Range-restricted species are particularly susceptible to environmental change, demographic stochasticity, and anthropogenic disturbance (Burriel-Carranza *et al.* 2024a; Hung *et al.* 2014; Kardos *et al.* 2018; Pimm *et al.* 2014). Their limited geographic distribution and often small population sizes increase vulnerability to climate shifts, habitat degradation, and biological invasions, which subsequently lead to genetic impoverishment of the populations (Allendorf *et al.* 2010; Hung *et al.* 2014). Consequently, microendemic taxa frequently rank among the highest threatened taxa (Meiri *et al.* 2018).

The rapid expansion of next-generation sequencing approaches has substantially improved our ability to delimit deeply divergent and morphologically cryptic lineages, revealing previously unrecognized species with extremely restricted ranges that require urgent conservation attention (Barata *et al.* 2012; Bickford *et al.* 2007; Burriel-Carranza *et al.* 2025; Carranza *et al.* 2016; Simó-Riudalbas *et al.* 2017, 2018; Šmíd *et al.* 2017). Such a pattern is evident in the Arabian Peninsula, where long-term hyper-aridity combined with geographic isolation has promoted *in situ* diversification and high levels of endemism, with mountain ranges emerging as hotspots of diversification and endemism (Burriel-Carranza *et al.* 2019, 2024b; Carranza *et al.* 2018, 2021; Šmíd *et al.* 2021).

The *Pristurus rupestris* Blanford, 1874 species complex comprises a radiation of miniaturized, cryptic, diurnal geckos characterized by visual signaling behavior involving push-up displays, lateral tail movements, and vertical tail curling (Ackermann, 2018; Arnold 1993, 2009; Carranza *et al.* 2021). What was historically considered a single widespread and very abundant species has been shown to represent a polyphyletic assemblage of at least six species (Badiane *et al.* 2014; Burriel-Carranza *et al.* 2023, 2025; Garcia-Porta *et al.* 2017), five of which form a well-supported clade endemic to the Hajar Mountains of Oman and the United Arab Emirates (i.e., although some populations of *P. rupestris* also occur in the adjacent coast of Iran). Phylogenetic evidence indicates that this radiation originated during the middle Miocene, approximately 11 Ma (Burriel-Carranza *et al.* 2024b, 2025; Koppetsch *et al.* 2026), highlighting a long and independent evolutionary history within this mountain system.

Among these taxa, *Pristurus assareen* Burriel-Carranza, Koppetsch, Garcia-Porta, Carranza, 2025 represents a micro-endemic species only known from three individuals: male holotype (ZFMK 104095), a juvenile paratype (MCNB-MZB 2024–0989) and a female paratype (IBES7257). The specimens were collected from a single locality in the As Sareen Nature Reserve in the eastern Hajar Mountains (Burriel-Carranza *et al.* 2025), thus representing one of the most range-restricted reptile species in Arabia (Meiri *et al.* 2018). Furthermore, *P. assareen* has been shown to occur in strict sympatry and syntopy with lineage BFD2 of *P. rupestris* (*sensu* Burriel-Carranza *et al.* 2025), a species with the same ecological niche and that could be presenting a threat to the former through resource competition. Furthermore, genomic data revealed no evidence of gene flow between both species, suggesting the presence of effective pre- or postzygotic isolation mechanisms (Burriel-Carranza *et al.* 2024b, 2025; Koppetsch *et al.* 2026). Given its extremely narrow known distribution, limited number of recorded individuals, and its potential competitive displacement by the more abundant *P. rupestris* (i.e., both species occupy the same ecological niche), *P. assareen* is considered Critically Endangered by the IUCN Red List (Carranza *et al.*, 2023).

On the seventh and eighth of November 2024, we conducted a two-day field survey to determine the distribution limits of *P. assareen* and to assess whether additional individuals could be found. Surveys were performed under permit 6210/10/210 issued by the Environment Authority, Sultanate of Oman. Despite extensive fieldwork previously carried out in the lowlands surrounding the As Sareen Nature Reserve (Burriel-Carranza *et al.* 2025; Carranza *et al.* 2018), not a single specimen of *P. assareen* had ever been recorded in the area. All known specimens of the species have been exclusively found at elevations around 1,600 m above sea level (Burriel-Carranza *et al.* 2025). For this reason, we designed an elevational transect to explicitly test the lower and upper distributional limits of the species. A 15 km elevational transect was established from the base of the mountain range near the entrance of the As Sareen Nature Reserve to one of the highest accessible ridges, reaching 1,916 m above sea level (Fig. 1). Systematic active searches were conducted along the transect, and specimens were collected and photographed in life and all photographs were deposited in MorphoBank under project number 6270 (<https://www.morphobank.org/permalink/?P6270>). In total, 140 *Pristurus* individuals were sampled. Details of the sampled specimens, including specimen code, latitude, longitude, locality number, elevation, and GenBank and MorphoBank accession numbers, are provided in Appendix I. Given the morphological crypsis between *P. assareen* and the sympatric *P. rupestris*, species identification was confirmed exclusively using molecular tools. Previous molecular studies based on both mitochondrial and nuclear markers, including multilocus nuclear loci and genome-wide SNP data, have consistently shown the absence of hybridization or introgression between *P. assareen* and any other species within the *P. rupestris* species complex (Garcia-Porta *et al.* 2017; Burriel-Carranza *et al.* 2025; Koppetsch *et al.* 2026). This strong and concordant genetic differentiation supports the use of a single mitochondrial marker as a reliable DNA barcode for species identification in this system. Accordingly, DNA from each individual was extracted from ethanol-preserved tail tips using the DNeasy Blood & Tissue Kit (Qiagen), following the manufacturer's protocol. A ~400 bp fragment of the mitochondrial 12S rRNA (*12S*) gene was PCR-amplified and bidirectionally Sanger sequenced using the primers and amplification conditions described in Metallinou *et al.* (2015). An additional 174 *12S* sequences representing all described species and lineages within the *P. rupestris* species complex were retrieved from Burriel-Carranza *et al.* (2025) to provide phylogenetic context. Sequences were aligned in Geneious v.2021.1.1 and trimmed using Gblocks under low stringency settings (Castresana 2000; Talavera & Castresana 2007). Maximum Likelihood analyses were conducted in RAxML-ng v.1.0.2 (Kozlov *et al.* 2019) under a GTR+G model with 100 starting trees and 1,000 bootstrap replicates. Species identification was based on phylogenetic placement and confirmed through BLAST searches against GenBank.

Maximum Likelihood reconstruction based on the *12S* fragment (Fig. 2A) unambiguously recovered lineage-level assignment of all newly collected specimens. Using both phylogenetic and BLAST analyses, we identified 84 *P. assareen* specimens. All remaining individuals, except one, were assigned to lineage BFD2 of *P. rupestris*. Notably, the individual from the lowest elevation site (locality 1; Fig. 1) was identified as *P. feulneri* Burriel-Carranza, Koppetsch, Garcia-Porta, Els, Carranza, 2025 (lineage BFD9 *sensu* Burriel-Carranza *et al.* 2025), extending the known distribution of this lineage approximately 25 km eastwards. The elevational transect provides novel insights into the ecological distribution of *P. assareen*. Along the gradient, we observe that *P. rupestris* dominates lower elevations up to approximately 1,600 m a.s.l., after which its relative abundance declines while the proportion of *P. assareen* increases (Fig. 1). Although both species occur in sympatry across a substantial portion of the transect, *P. assareen* is predominantly associated with higher elevations (1,693–1,913 m). Habitat structure appeared broadly similar across sites, characterized by sparse vegetation and rocky substrates. However, lower elevations contained greater amounts of loose sand and dust, whereas higher elevations were dominated by rock outcrops, crevices, and more exposed ridgelines (Fig. 2). Increased wind exposure and potentially cooler microclimatic conditions at higher elevations may contribute to ecological differentiation, although this requires

formal testing. Notably, activity of otherwise strictly diurnal *Pristurus* geckos was observed even after sunset, suggesting that heat retention in rocky substrates may permit an extension of the activity period beyond the extremely hot daytime hours. Comparable patterns have been reported in diurnal lacertids from the genus *Gallotia*, where heat-absorbing lava substrates facilitate nocturnal activity and shifts from visual to acoustic signaling under low-light conditions (Böhme *et al.* 1985). Color pattern variation showed extensive overlap between species. *Pristurus rupestris* tended to exhibit paler dorsal coloration with more conspicuous reddish flank spotting, whereas *P. assareen* appeared generally darker with reduced contrast in flank patterning (Fig. 3). Nevertheless, substantial interspecific color overlap was observed (Fig. 3), which made coloration alone insufficient for reliable identification.

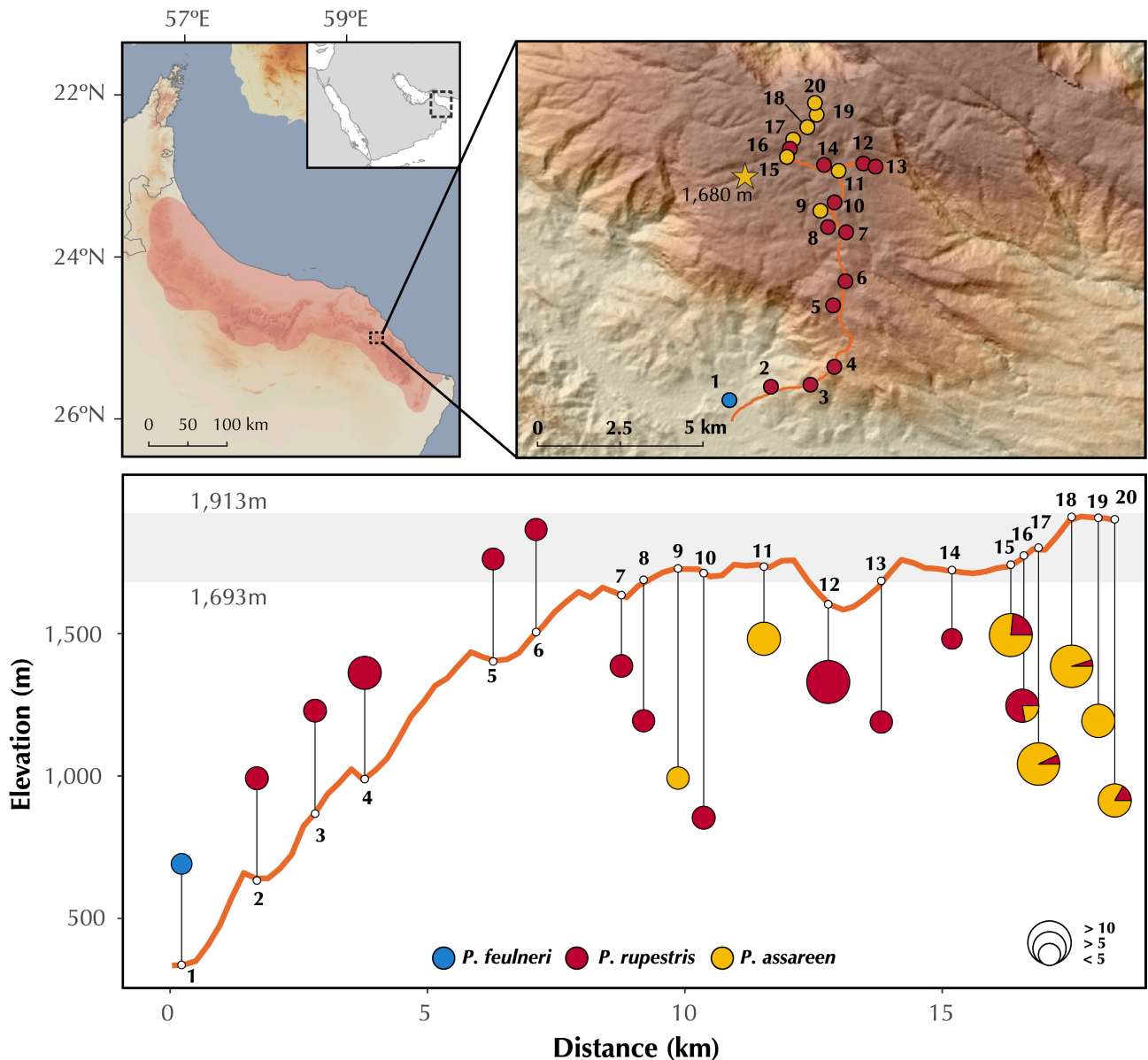


FIGURE 1. Area of study and distribution of *Pristurus assareen*. The upper left panel shows the Hajar Mountains of southeastern Arabia. In red, the distribution range of *Pristurus rupestris* in Arabia is shown. To the right, the transect (orange line) and localities (dots) sampled in this study are presented. Localities are colored by the most abundant species at each site (blue: *P. feulneri*; red: *P. rupestris*; yellow: *P. assareen*). The yellow star represents the type locality of *P. assareen*. The lower panel shows the elevational profile of the conducted transect. The species proportion is shown with pie charts at each locality. Pie chart size is proportional to the number of specimens. The grey horizontal band shows the elevational range of *P. assareen* presence in this study. See locality information in Appendix I.

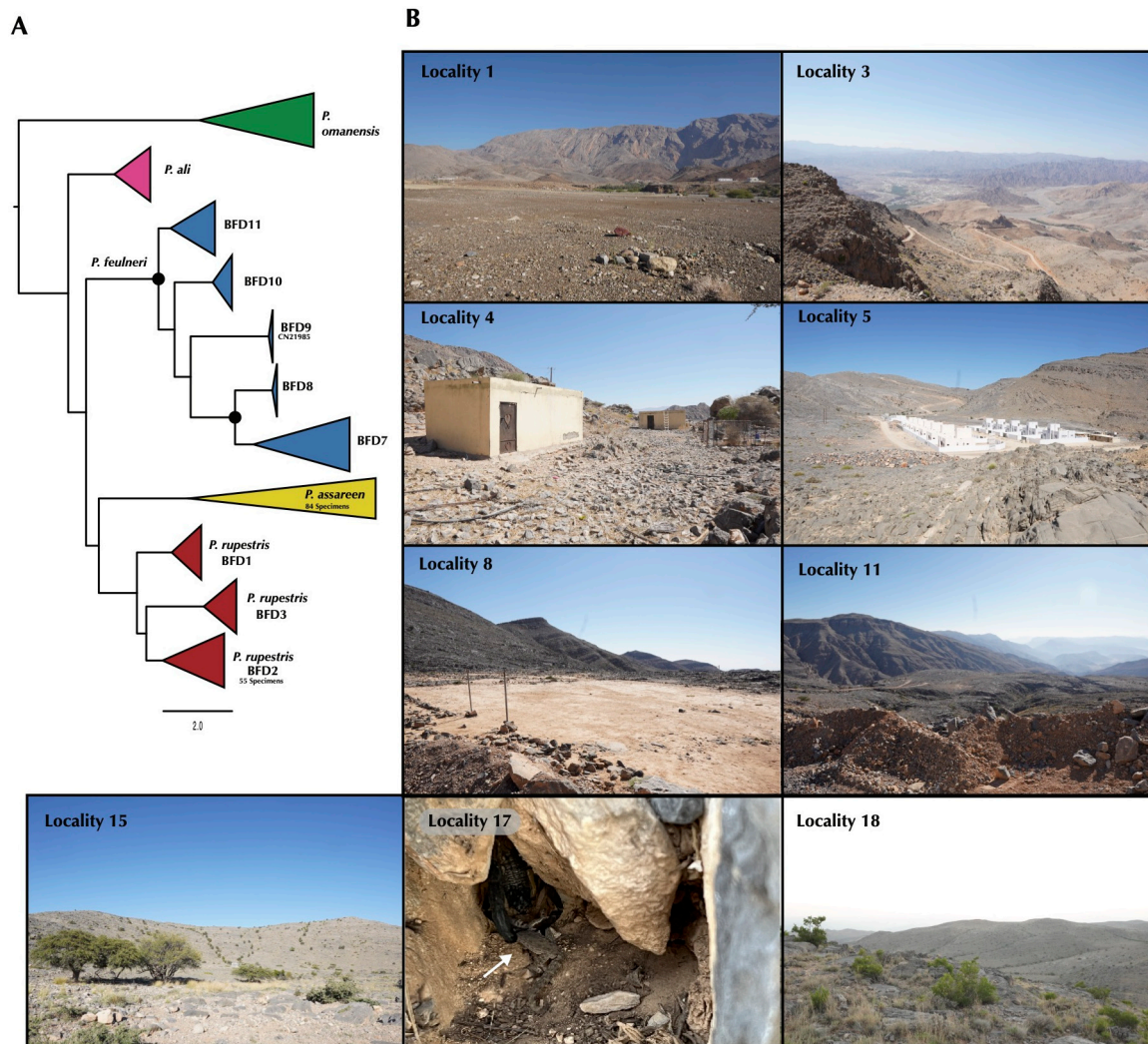
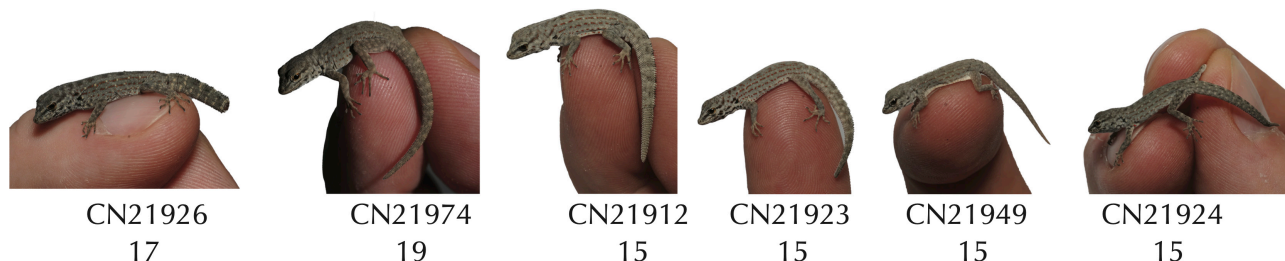


FIGURE 2. A) Maximum Likelihood phylogenetic reconstruction using the *12S* mitochondrial gene showing relationships among species from the *Pristurus rupestris* species complex. Number of specimens identified in this study from each species is shown in the tree. **B)** Habitat of *P. rupestris* and *P. assareen* in the As Sareen Nature Reserve. Localities are ordered following the elevational gradient in Figure 1. In locality 17, a scorpion (likely referable to *Hottentotta jayakari* (Pocock, 1895)) is shown preying on a *P. assareen* individual.

Pristurus geckos constitute an important component of this arid mountain ecosystem. Although primarily insectivorous themselves, they serve as prey for a diverse range of vertebrate and invertebrate taxa, including birds, mammals, snakes, and large arthropods such as scorpions (Fig. 2B, locality 17). Despite their small body size, *Pristurus* species can reach high local densities and therefore play an important role in ecosystem functioning in the Hajar Mountains. Our results demonstrate that *P. assareen* is considerably more abundant within its distribution range than previously known. However, this apparent demographic robustness must be interpreted cautiously. The newly documented records expand its known distribution from a single locality to an area of only 10 km², and its distribution remains extremely restricted to a narrow elevational band of less than 200 m within a single mountain massif. Furthermore, the apparent abundance of individuals near upper ridgelines may have conservation implications under future climate warming scenarios, as upslope range shifts would be spatially constrained. *Pristurus rupestris* is frequently associated with human-made structures (Burriel-Carranza *et al.* 2025; Carranza *et al.* 2021). In this study, at all localities where anthropogenic structures were surveyed (localities 4, 5, and 14), only *P. rupestris* was recorded. This species has been introduced to several islands in the United Arab Emirates following infrastructure development (Burriel-Carranza *et al.* 2025), and was recently documented on Masirah Island, Oman (Estarellas *et al.* 2026). Although lying below the lower elevational limit of *P. assareen*, ongoing infrastructure expansion within the As Sareen Nature Reserve (locality 5) may pose a threat to *P. assareen* by facilitating the spread and

increasing the local abundance of *P. rupestris*. Nevertheless, whether elevational segregation with *P. rupestris* reflects competitive interactions or intrinsic ecological specialization remains unresolved and should be specifically tested. Therefore, while the number of known individuals has increased substantially, continued surveys along the eastern Hajar Mountains, particularly within the Saih Hatat massif, are essential to determine whether additional populations occur beyond the currently documented range.

Pristurus assareen



Pristurus rupestris

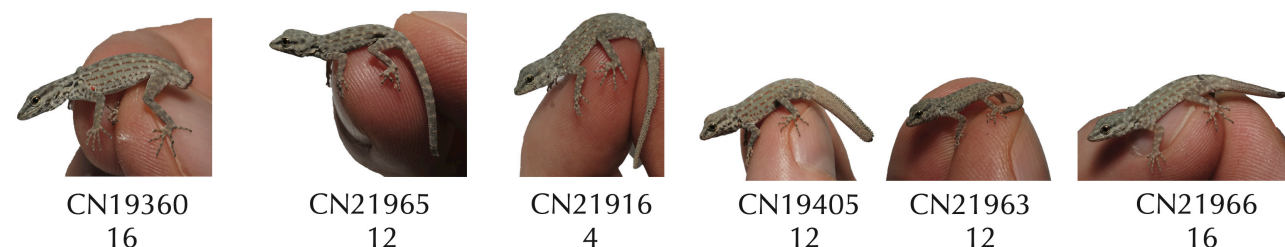


FIGURE 3. Plate showing intra- and interspecific color variation of *Pristurus assareen* (top) and *P. rupestris* (bottom). Below each individual, their specimen code and locality of origin is shown.

Acknowledgements

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APPENDIX I. Information on the 140 *Pristurus* specimens collected and sampled in this study, including locality of origin, elevation, and *12S* GenBank accession numbers where available. For five specimens, GenBank accession numbers are not provided because only the reverse strand was successfully sequenced and therefore the sequences were not uploaded to GenBank. Nevertheless, species identification for these specimens is unambiguous, as the corresponding forward sequences were compared against GenBank reference sequences and allowed confident assignment to species level.

Species	Specimen Code	Latitude	Longitude	Locality	Elevation (m)	<i>12S</i> GenBank accession number
<i>P. feulneri</i>	CN21985	23.06	58.612	1	338	PZ048038
<i>P. rupestris</i>	CN20092	23.067	58.625	2	613	PZ047915
<i>P. rupestris</i>	CN20009	23.068	58.636	3	875	PZ047980
<i>P. rupestris</i>	CN19350	23.073	58.643	4	992	PZ047960
<i>P. rupestris</i>	CN19963	23.073	58.643	4	992	PZ047912
<i>P. rupestris</i>	CN19999	23.073	58.643	4	992	PZ047976
<i>P. rupestris</i>	CN20048	23.073	58.643	4	992	PZ047983
<i>P. rupestris</i>	CN21916	23.073	58.643	4	992	PZ047999
<i>P. rupestris</i>	CN21938	23.073	58.643	4	992	PZ048013
<i>P. rupestris</i>	CN21951	23.073	58.643	4	992	PZ048017
<i>P. rupestris</i>	BC00531	23.091	58.643	5	1,419	PZ047949
<i>P. rupestris</i>	CN19914	23.098	58.647	6	1,510	PZ047968
<i>P. rupestris</i>	CN20056	23.098	58.647	6	1,510	PZ047987
<i>P. rupestris</i>	BC00541	23.112	58.647	7	1,616	PZ047908
<i>P. rupestris</i>	CN20142	23.112	58.647	7	1,616	PZ047993
<i>P. rupestris</i>	BC00152	23.114	58.642	8	1,687	PZ047938
<i>P. rupestris</i>	BC00589	23.114	58.642	8	1,687	PZ047954
<i>P. rupestris</i>	BC00594	23.114	58.642	8	1,687	PZ047955
<i>P. assareen</i>	BC00486	23.119	58.639	9	1,693	PZ047906
<i>P. assareen</i>	BC00487	23.119	58.639	9	1,693	PZ047945
<i>P. assareen</i>	BC00543	23.119	58.639	9	1,693	PZ047951
<i>P. assareen</i>	BC00968	23.119	58.639	9	1,693	PZ047957
<i>P. assareen</i>	CN20004	23.119	58.639	9	1,693	PZ047977
<i>P. rupestris</i>	BC00443	23.121	58.643	10	1,713	PZ047943
<i>P. rupestris</i>	BC00449	23.121	58.643	10	1,713	PZ047944
<i>P. rupestris</i>	BC00556	23.121	58.643	10	1,713	PZ047953
<i>P. assareen</i>	CN19950	23.131	58.645	11	1,730	PZ047969
<i>P. assareen</i>	CN21918	23.131	58.645	11	1,730	PZ048001
<i>P. assareen</i>	CN21944	23.131	58.645	11	1,730	PZ047927
<i>P. assareen</i>	CN21961	23.131	58.645	11	1,730	PZ048025
<i>P. assareen</i>	CN21975	23.131	58.645	11	1,730	PZ048034
<i>P. assareen</i>	CN21978	23.131	58.645	11	1,730	PZ047935
<i>P. assareen</i>	CN21979	23.131	58.645	11	1,730	PZ047936
<i>P. rupestris</i>	BC00430	23.132	58.656	12	1,609	PZ047941
<i>P. rupestris</i>	BC00519	23.132	58.656	12	1,609	PZ047948
<i>P. rupestris</i>	BC00598	23.132	58.656	12	1,609	PZ047910
<i>P. rupestris</i>	CN19341	23.132	58.656	12	1,609	PZ047959
<i>P. rupestris</i>	CN19405	23.132	58.656	12	1,609	PZ047964
<i>P. rupestris</i>	CN21907	23.132	58.656	12	1,609	PZ047995

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APPENDIX I. (Continued)

Species	Specimen Code	Latitude	Longitude	Locality	Elevation (m)	12S GenBank accession number
<i>P. rupestris</i>	CN21913	23.132	58.656	12	1,609	PZ047996
<i>P. rupestris</i>	CN21917	23.132	58.656	12	1,609	PZ048000
<i>P. rupestris</i>	CN21921	23.132	58.656	12	1,609	PZ048003
<i>P. rupestris</i>	CN21957	23.132	58.656	12	1,609	PZ048023
<i>P. rupestris</i>	CN21958	23.132	58.656	12	1,609	PZ047929
<i>P. rupestris</i>	CN21963	23.132	58.656	12	1,609	PZ048026
<i>P. rupestris</i>	CN21965	23.132	58.656	12	1,609	PZ048027
<i>P. rupestris</i>	BC00868	23.133	58.652	13	1,664	PZ047956
<i>P. rupestris</i>	BC01024	23.133	58.652	13	1,664	PZ047958
<i>P. rupestris</i>	CN21955	23.133	58.652	13	1,664	PZ048021
<i>P. rupestris</i>	CN19911	23.132	58.64	14	1,723	PZ047967
<i>P. rupestris</i>	CN19995	23.132	58.64	14	1,723	PZ047975
<i>P. assareen</i>	BC00006	23.135	58.629	15	1,737	PZ047904
<i>P. rupestris</i>	CN19904	23.135	58.629	15	1,737	PZ047966
<i>P. rupestris</i>	CN19960	23.135	58.629	15	1,737	PZ047973
<i>P. rupestris</i>	CN19961	23.135	58.629	15	1,737	PZ047974
<i>P. assareen</i>	CN19998	23.135	58.629	15	1,737	PZ047913
<i>P. assareen</i>	CN20044	23.135	58.629	15	1,737	PZ047982
<i>P. rupestris</i>	CN20052	23.135	58.629	15	1,737	PZ047984
<i>P. rupestris</i>	CN20054	23.135	58.629	15	1,737	PZ047986
<i>P. assareen</i>	CN20089	23.135	58.629	15	1,737	-
<i>P. assareen</i>	CN20097	23.135	58.629	15	1,737	PZ047916
<i>P. assareen</i>	CN20134	23.135	58.629	15	1,737	PZ047991
<i>P. rupestris</i>	CN20135	23.135	58.629	15	1,737	PZ047992
<i>P. assareen</i>	CN21906	23.135	58.629	15	1,737	PZ047918
<i>P. assareen</i>	CN21909	23.135	58.629	15	1,737	PZ047919
<i>P. assareen</i>	CN21910	23.135	58.629	15	1,737	PZ047920
<i>P. assareen</i>	CN21912	23.135	58.629	15	1,737	PZ047921
<i>P. assareen</i>	CN21915	23.135	58.629	15	1,737	PZ047998
<i>P. assareen</i>	CN21920	23.135	58.629	15	1,737	PZ048002
<i>P. assareen</i>	CN21923	23.135	58.629	15	1,737	PZ047922
<i>P. assareen</i>	CN21924	23.135	58.629	15	1,737	PZ048005
<i>P. assareen</i>	CN21925	23.135	58.629	15	1,737	PZ047923
<i>P. assareen</i>	CN21932	23.135	58.629	15	1,737	PZ048009
<i>P. assareen</i>	CN21933	23.135	58.629	15	1,737	PZ048010
<i>P. assareen</i>	CN21939	23.135	58.629	15	1,737	PZ047926
<i>P. assareen</i>	CN21948	23.135	58.629	15	1,737	-
<i>P. assareen</i>	CN21949	23.135	58.629	15	1,737	PZ048015
<i>P. assareen</i>	CN21950	23.135	58.629	15	1,737	PZ048016
<i>P. assareen</i>	CN21952	23.135	58.629	15	1,737	PZ048018
<i>P. assareen</i>	CN21956	23.135	58.629	15	1,737	PZ048022
<i>P. rupestris</i>	CN21980	23.135	58.629	15	1,737	PZ048036
<i>P. rupestris</i>	BC00017	23.137	58.63	16	1,793	PZ047937

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APPENDIX I. (Continued)

Species	Specimen Code	Latitude	Longitude	Locality	Elevation (m)	12S GenBank accession number
<i>P. assareen</i>	BC00572	23.137	58.63	16	1,793	PZ047909
<i>P. rupestris</i>	CN19360	23.137	58.63	16	1,793	PZ047961
<i>P. rupestris</i>	CN19957	23.137	58.63	16	1,793	PZ047971
<i>P. assareen</i>	CN20080	23.137	58.63	16	1,793	PZ047988
<i>P. rupestris</i>	CN21929	23.137	58.63	16	1,793	PZ048008
<i>P. rupestris</i>	CN21935	23.137	58.63	16	1,793	PZ048011
<i>P. rupestris</i>	CN21954	23.137	58.63	16	1,793	PZ048020
<i>P. rupestris</i>	CN21966	23.137	58.63	16	1,793	PZ048028
<i>P. assareen</i>	CN19371	23.14	58.631	17	1,796	PZ047962
<i>P. assareen</i>	CN19402	23.14	58.631	17	1,796	PZ047963
<i>P. assareen</i>	CN19411	23.14	58.631	17	1,796	PZ047965
<i>P. assareen</i>	CN19951	23.14	58.631	17	1,796	PZ047970
<i>P. assareen</i>	CN19953	23.14	58.631	17	1,796	PZ047911
<i>P. assareen</i>	CN19959	23.14	58.631	17	1,796	PZ047972
<i>P. assareen</i>	CN20043	23.14	58.631	17	1,796	PZ047981
<i>P. assareen</i>	CN20079	23.14	58.631	17	1,796	-
<i>P. assareen</i>	CN20085	23.14	58.631	17	1,796	-
<i>P. assareen</i>	CN20129	23.14	58.631	17	1,796	PZ047917
<i>P. assareen</i>	CN20145	23.14	58.631	17	1,796	PZ047994
<i>P. assareen</i>	CN21926	23.14	58.631	17	1,796	PZ048006
<i>P. assareen</i>	CN21943	23.14	58.631	17	1,796	-
<i>P. rupestris</i>	CN21953	23.14	58.631	17	1,796	PZ048019
<i>P. assareen</i>	BC00165	23.143	58.635	18	1,913	PZ047939
<i>P. assareen</i>	BC00288	23.143	58.635	18	1,913	PZ047905
<i>P. assareen</i>	BC00417	23.143	58.635	18	1,913	PZ047940
<i>P. assareen</i>	BC00433	23.143	58.635	18	1,913	PZ047942
<i>P. assareen</i>	BC00511	23.143	58.635	18	1,913	PZ047946
<i>P. assareen</i>	BC00513	23.143	58.635	18	1,913	PZ047907
<i>P. assareen</i>	BC00532	23.143	58.635	18	1,913	PZ047950
<i>P. assareen</i>	BC00546	23.143	58.635	18	1,913	PZ047952
<i>P. assareen</i>	CN20006	23.143	58.635	18	1,913	PZ047978
<i>P. rupestris</i>	CN20053	23.143	58.635	18	1,913	PZ047985
<i>P. assareen</i>	CN20087	23.143	58.635	18	1,913	PZ047989
<i>P. assareen</i>	CN20088	23.143	58.635	18	1,913	PZ047914
<i>P. assareen</i>	CN20091	23.143	58.635	18	1,913	PZ047990
<i>P. assareen</i>	CN21928	23.143	58.635	18	1,913	PZ048007
<i>P. assareen</i>	CN21934	23.143	58.635	18	1,913	PZ047925
<i>P. assareen</i>	CN21937	23.143	58.635	18	1,913	PZ048012
<i>P. assareen</i>	CN21942	23.143	58.635	18	1,913	PZ048014
<i>P. assareen</i>	CN21945	23.143	58.635	18	1,913	PZ047928
<i>P. assareen</i>	CN21971	23.143	58.635	18	1,913	PZ048031
<i>P. assareen</i>	CN21972	23.143	58.635	18	1,913	PZ048032
<i>P. assareen</i>	BC00515	23.147	58.638	19	1,907	PZ047947

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APPENDIX I. (Continued)

Species	Specimen Code	Latitude	Longitude	Locality	Elevation (m)	<i>ITS</i> GenBank accession number
<i>P. assareen</i>	CN20007	23.147	58.638	19	1,907	PZ047979
<i>P. assareen</i>	CN21931	23.147	58.638	19	1,907	PZ047924
<i>P. assareen</i>	CN21962	23.147	58.638	19	1,907	PZ047930
<i>P. assareen</i>	CN21969	23.147	58.638	19	1,907	PZ048029
<i>P. assareen</i>	CN21970	23.147	58.638	19	1,907	PZ048030
<i>P. assareen</i>	CN21973	23.147	58.638	19	1,907	PZ047933
<i>P. assareen</i>	CN21974	23.147	58.638	19	1,907	PZ048033
<i>P. assareen</i>	CN21976	23.147	58.638	19	1,907	PZ047934
<i>P. rupestris</i>	CN21914	23.151	58.638	20	1,901	PZ047997
<i>P. assareen</i>	CN21922	23.151	58.638	20	1,901	PZ048004
<i>P. assareen</i>	CN21959	23.151	58.638	20	1,901	PZ048024
<i>P. assareen</i>	CN21968	23.151	58.638	20	1,901	PZ047932
<i>P. assareen</i>	CN21977	23.151	58.638	20	1,901	PZ048035
<i>P. assareen</i>	CN21983	23.151	58.638	20	1,901	PZ048037