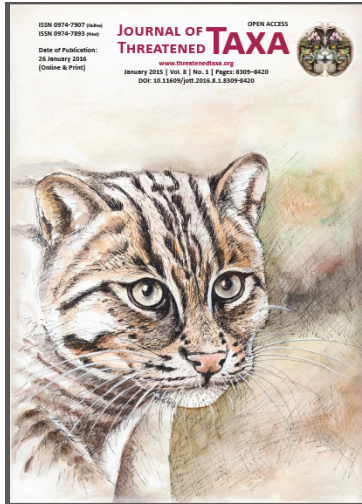


OPEN ACCESS



All articles published in the Journal of Threatened Taxa are registered under Creative Commons Attribution 4.0 International License unless otherwise mentioned. JoTT allows unrestricted use of articles in any medium, reproduction and distribution by providing adequate credit to the authors and the source of publication.



Journal of Threatened Taxa

The international journal of conservation and taxonomy

www.threatenedtaxa.org

ISSN 0974-7907 (Online) | ISSN 0974-7893 (Print)

NOTE

***OBERONIA MUCRONATA* (D. DON) ORMEROD & SEIDENF.
(ORCHIDACEAE), NEW ADDITION TO THE FLORA OF GUJARAT, INDIA**

Mital R. Bhatt & Padamnabhi S. Nagar

26 January 2016 | Vol. 8 | No. 1 | Pp. 8412–8414
10.11609/jott.1816.8.1.8412-8414



For Focus, Scope, Aims, Policies and Guidelines visit http://threatenedtaxa.org/About_JoTT.asp

For Article Submission Guidelines visit http://threatenedtaxa.org/Submission_Guidelines.asp

For Policies against Scientific Misconduct visit http://threatenedtaxa.org/JoTT_Policy_against_Scientific_Misconduct.asp

For reprints contact <info@threatenedtaxa.org>

Partner



Publisher/Host





ISSN 0974-7907 (Online)
ISSN 0974-7893 (Print)

OPEN ACCESS



The genus *Oberonia*, belonging to the family Orchidaceae, subfamily Epidendroideae, tribe Malaxideae and subtribe Malaxidinae was described by John Lindley in 1830. It comprises between 329 species distributed from South Africa through Asia to Australia and the Pacific islands with a single species in Madagascar and tropical Africa (Pearce & Cribb 2002; Govaerts et al. 2015).

The genus is epiphytic, rarely lithophytic, easily recognized by its clustered, fleshy, laterally compressed, ensiform, distichous leaves; terminal racemose inflorescence and small, numerous, non-resupinated flowers. In India, *Oberonia* is represented by 68 species (Ansari & Balakrishnan 1990; Misra 2007; Narayanan et al. 2010) and in Gujarat by two species (Anonymous 1996).

During the field survey for orchids of Gujarat, the first author collected a few plants of the genus *Oberonia* when it was flowering during the month of October 2014 from Dang District of southern Gujarat. On critical observation and perusal of the relevant literature (Santapau & Kapadia 1964; Abraham & Vatsala 1981) the specimens were identified as *Oberonia mucronata* (D. Don) Ormerod & Seidenf. After a scrutiny of the significant literature (Suryanarayana 1968; Desai 1976; Shah 1978, 1983; Vora 1980; Reddy 1987; Bole & Pathak 1988; Anonymous 1996, 1998–2002, 2001; Tadvī 2014), it was found to be a taxon hitherto not recorded from Gujarat State, hence it is reported here as a new

OBERONIA MUCRONATA (D. DON) ORMEROD & SEIDENF. (ORCHIDACEAE), NEW ADDITION TO THE FLORA OF GUJARAT, INDIA

Mital R. Bhatt¹ & Padamnabhi S. Nagar²

^{1,2}Department of Botany, Faculty of Science, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat 390002, India
¹mitalbhatt1990@gmail.com (corresponding author),
²drnagar@gmail.com

distribution record for the state. The present location in Gujarat is also the western most geographic range for this species. The voucher specimen is deposited in the herbaria of The Maharaja Sayajirao University of Baroda (BARO), and the Botanical Survey of India, Jodhpur (BSJO). With the current report, the genus *Oberonia* is now represented by three species, viz., *O. falconeri* Hook.f., *O. brunoniana* Wight and *O. mucronata* (D. Don) Ormerod & Seidenf. in Gujarat.

Globally the species has a wide range of distribution. In India it is distributed in Andhra Pradesh, Assam, Karnataka, Kerala, Maharashtra, Mizoram, Orissa, Tamil Nadu and Uttarakhand. In Gujarat very few individuals of this species were seen at Ahwa, Dangs District (Fig. 1). A detailed taxonomic description and images are provided here along with its habitat, regional distribution and geographical distribution to authenticate the new distribution record. An easy identification key to *Oberonia* species of Gujarat is provided.

DOI: <http://dx.doi.org/10.11609/jott.1816.8.1.8412-8414>

Editor: Pankaj Kumar, Kadoorie Farm and Botanic Garden Corporation, Hong Kong.

Date of publication: 26 January 2016 (online & print)

Manuscript details: Ms # 1816 | Received 06 February 2015 | Final received 30 December 2015 | Finally accepted 02 January 2016

Citation: Bhatt, M.R. & P.S. Nagar (2016). *Oberonia mucronata* (D. Don) Ormerod & Seidenf. (Orchidaceae), new addition to the flora of Gujarat, India. *Journal of Threatened Taxa* 8(1): 8412–8414; <http://dx.doi.org/10.11609/jott.1816.8.1.8412-8414>

Copyright: © Bhatt & Nagar 2016. Creative Commons Attribution 4.0 International License. JoTT allows unrestricted use of this article in any medium, reproduction and distribution by providing adequate credit to the authors and the source of publication.

Funding: Gujarat Biodiversity Board.

Conflict of Interest: The authors declare no competing interests.

Acknowledgements: The authors are thankful to Dr. A.P. Singh, Member Secretary, Gujarat Biodiversity Board (GBB) for financial assistance. The authors are also thankful to Dr. Dinesh Agrawal (BSI Sikkim) and Dr. Jeewan S. Jalal (BSI Pune) for their assistance in the authentication of plant material. We are thankful to the reviewers of the manuscript for their critical comments and suggestions. The laboratory studies were supported by Prof. Sandhya Kiran Garge, the Head, Department of Botany, the Maharaja Sayajirao University Baroda.



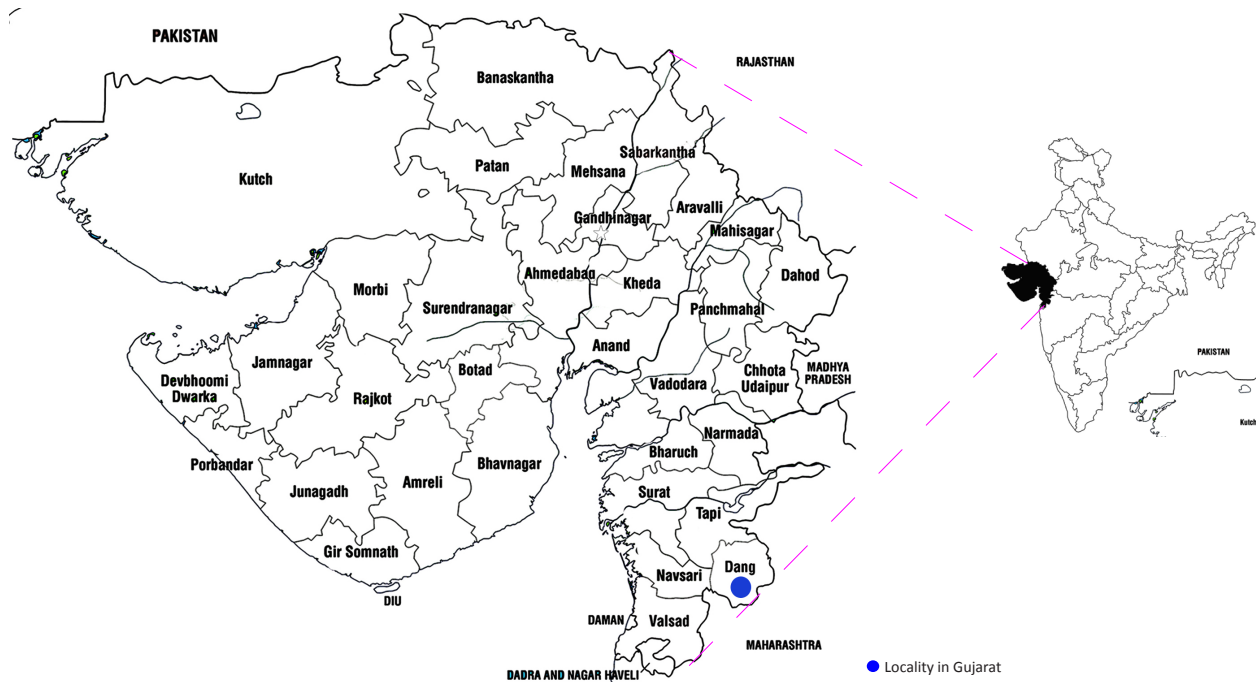


Figure 1. Distribution of *Oberonia mucronata* (D. Don) Ormerod & Seidenf in Gujarat.

Oberonia mucronata (Image 1)

(D. Don) Ormerod & Seidenf. in G. Seidenfaden, Contr. Orchid Fl. Thailand. 13:20 (1997). *Stelis mucronata* D. Don in Prodr. Fl. Nepal. 32. 1825; *Cymbidium iridifolium* Roxb. in Fl. Ind. ed. 1832, 3: 458 (1832); *Oberonia denticulata* Wight in Icon. P1. Ind. Orient. 5: t. 1625 (1851); *Malaxis denticulata* (Wight) Rchb.f. in Ann. Bot. Syst. 6: 208 (1861); *O. iridifolia* var. *brevifolia* Hook. f. in Fl. Brit. India 5: 676 (1890); *O. iridifolia* var. *denticulata* (Wight) Hook. f. in Fl. Brit. India 5: 676 (1890). *O. denticulata* var. *iridifolia* (Roxb.) S. Misra in J. Orchid Soc. India 3: 69 (1989); *O. denticulata* var. *brevifolia* (Hook.f.) S. Misra in J. Orchid Soc. India 3: 70 (1989); *O. brevifolia* (Hook.f.) Panigrahi in S.K. Murti & G. Panigrahi, Fl. Bilaspur Distr. 2: 591 (1999); *O. smisrae* Panigrahi in S.K. Murti & G. Panigrahi, Fl. Bilaspur Distr. 2: 593 (1999).

Isotype: 1832, Sillet, Bangladesh, N. Wallich, # 1948b (P00404924) (P!).

Erect or pendulous epiphytic herb, 19–22 cm long with inflorescence. Leaves 4 to 5, clustered, 7–9.5×1.5–1.7 cm, distichous, laterally compressed, thick, fleshy, pale green, oblong-ensiform with acute apex. Scape 3–4×0.3 cm, flattened, adnate to the upper leaf in young plants, Inflorescence 16–19 cm long, decurved, densely flowered. Flowers pedicelled, 2–2.5 mm long, golden yellow, bracteate. Bracts equaling the size of ovary, 1.3×0.7 mm, ovate to oblong, acute or obtuse, irregularly denticulate along the margin. Dorsal sepal



Image 1. *Oberonia mucronata* (D. Don) Ormerod & Seidenf. a - habit; b - part of inflorescence with flowers; c - side view of flower; d - front view of flower; e - petal; f - lip

Key to identification of *Oberonia* of the Gujarat

1. Lip with entire margin;
2. Leaves up to 8cm, pale green, scape cylindrical *O. falconeri*
2. Leaves up to 28cm, purplish-brown, scape flat *O. brunoniana*
1. Lip with deeply toothed or lacinate margin *O. mucronata*

1–1.2×0.8 mm, ovate, acute, entire along the margins; lateral sepals narrower with acute apex. Petals 1×0.5, ovate to oblong, obtuse with irregularly erose margin. Lip quadrate in outline, glabrous or sparsely hairy, gland-dotted, 5×5 mm, 3-lobed, lateral lobes oblong, deeply dentate, spreading in flower except for the incurved distal end; middle lobe two-lobuled, lobules triangular, acute, deeply dentate. Ovary with pedicel 1.2–1.5 mm long, glabrous. Column 1 mm long, subglobose, sessile. Capsule 0.3× 0.1 mm, ellipsoid with a short pedicel (Image 1).

Specimen Examined: 0094 (BSJO!), 28.x.2014, 20°43'39.72"N & 73°40'22.86"E, 297m, Ahwa, Dangas, Gujarat, India, coll. Mital R. Bhatt.

Flowering & Fruiting: August–December

Habitat and Ecology: *Oberonia mucronata* was mostly observed on the tree trunk of *Terminalia crenulata* in moist deciduous forest, in association with other members of Orchidaceae like *Oberonia falconeri*, *Vanda tessellata* and *Vanda testacea*.

Global distribution: India (Andhra Pradesh, Assam, Gujarat, Karnataka, Kerala, Maharashtra, Mizoram, Tamil Nadu and Uttarakhand), Bangladesh, Bhutan, China, Indonesia, Jawa, Laos, Malaya, Malaysia, Myanmar, Nepal, Philippines, Thailand and Vietnam.

References

- Abraham, A. & P. Vatsala (1981). *Introduction to Orchids*. Tropical Botanic Garden and Research Institute, Trivandrum, 414–428pp.
- Anonymous (1996). *The Biological Diversity of Gujarat*. Gujarat Ecology Commission, Vadodara, India, 149–150pp.
- Anonymous (1998–2002). *Conservation of Rare and Endangered Biodiversity of Gujarat*, Gujarat Ecology Commission, Vadodara, India, 156–139pp.
- Anonymous (2001). *Threatened Biodiversity of Gujarat*, Gujarat Ecology Commission, Vadodara, India, 18–103pp.
- Ansari, R. & N.P. Balakrishnan (1990). *A revision of the Indian species of Oberonia (Orchidaceae)*. *Orchid Monographs* 4: 1–82.
- Bole, P.V. & U.M. Pathak (1988). *Flora of Saurashtra*. Botanical Survey of India, iii+305–306pp.
- Desai, M.J. (1976). A Contribution to the Flora of Bansda Forest. PhD Thesis, Sardar Patel University, Vallabh Vidyanagar, 520–528pp.
- Govaerts, R., M.A. Campacci, D.H. Baptista, P. Cribb, A. George, K. Krenuz, J. Wood, P. Bernet, K. Kartochvil, G. Gerlach, G. Carr, P. Alrich, A.M. Pridgeon, J. Pfahl, H. Tigges & J. Shaw (2015). World Checklist of Orchidaceae. Facilitated by the Royal Botanic Garden, Kew Published on the internet; <http://apps.kew.org/wcsp/> Accessed on May 2015.
- Misra, S. (2007). *Orchids of India - A Glimpse*. Bishen Singh Mahendra Pal Singh, Dehradun, India.
- Narayanan, M.K., M. Manudev, P. Sujanalpal, N.A. Kumar, M. Sivadasan & H.A. Ahmed (2010). *Oberonia swaminathanii* sp. nov. (Orchidaceae) from, Kerala, India. *Nordic Journal of Botany* 28: 713–715; <http://dx.doi.org/10.1111/j.1756-1051.2010.00822.x>
- Pearce, N. & P.J. Cribb (2002). *Flora of Bhutan. The Orchids of Bhutan - Vol. 3, Part 3*. Royal Botanical Garden, Edinburgh.
- Reddy, A.S. (1987). Flora of Dharampur forests. PhD Thesis, Sardar Patel University, Vallabh Vidyanagar, 520–528pp.
- Santapau, H. & Z. Kapadia (1964). *The Orchids of Bombay*. Calcutta, 54–76pp.
- Shah, G.L. (1978). *Flora of Gujarat*. Sardar Patel University, Vallabh Vidyanagar, iii+652–663pp.
- Shah, G.L. (1983). Rare species with restricted distribution in South Gujarat, pp. 50–54. In: Jain, S.K. & R.R. Rao (eds.). *Assessment of Threatened Plant of India*. Botanical Survey of India, Howrah.
- Suryanarayana, B. (1968). A Contribution to the flora of Dangas Forest. PhD Thesis, Sardar Patel University, Vallabh Vidyanagar, ii+637–647pp.
- Tadvi, D.S. (2014). Floristic diversity of Dangas, Gujarat. PhD Thesis, Department of Botany, The Maharaja Sayajirao University of Baroda, Vadodara, 37–167pp.
- Vora, H.M. (1980). Contribution to the flora of Dharampur, Kaprada and Nana ponda Ranges. PhD Thesis, South Gujarat University, Surat, 886–891pp.





OPEN ACCESS



All articles published in the Journal of Threatened Taxa are registered under Creative Commons Attribution 4.0 International License unless otherwise mentioned. JoTT allows unrestricted use of articles in any medium, reproduction and distribution by providing adequate credit to the authors and the source of publication.

ISSN 0974-7907 (Online); ISSN 0974-7893 (Print)

January 2016 | Vol. 8 | No. 1 | Pages: 8309–8420

Date of Publication: 26 January 2016 (Online & Print)

DOI: 10.11609/jott.2016.8.1.8309-8420

www.threatenedtaxa.org

Article

Habitat quantity of Red-cockaded Woodpecker *Picoides borealis* (Aves: Piciformes: Picidae) in its former historic landscape near the Big Thicket National Preserve, Texas, USA
-- Vivek Thapa & Miguel F. Acevedo, Pp. 8309–8322

Communications

The conservation status of the Fishing Cat *Prionailurus viverrinus* Bennett, 1833 (Carnivora: Felidae) In Koshi Tappu Wildlife Reserve, Nepal
-- Iain Rothie Taylor, Hem Sagar Baral, Prava Pandey & Prativa Kaspal, Pp. 8323–8332

Avifauna of Chamba District, Himachal Pradesh, India with emphasis on Kalatop-Khajjiar Wildlife Sanctuary and its surroundings
-- Tariq Ahmed Shah, Vishal Ahuja, Martina Anandam & Chelmala Srinivasulu, Pp. 8333–8357

Status and population of vultures in Moyar Valley, southern India
-- R. Venkitachalam & S. Senthilnathan, Pp. 8358–8364

Short Communications

First record of *Scotophilus kuhlii* Leach, 1821 (Chiroptera: Vespertilionidae) from Nepal
-- Dibya Dahal, Sanjan Thapa & Khadga Basnet, Pp. 8365–8368

Avifaunal diversity in Assam University Campus, Silchar, India
-- Biswajit Chakdar, Parthankar Choudhury & Hilloljyoti Singha, Pp. 8369–8378

New locality record of the Travancore Bush Frog *Raorchestes travancoricus* Boulenger, 1891 (Amphibia: Anura: Rhacophoridae) from Periyar Tiger Reserve, Kerala, India
-- K.P. Rajkumar, T.S. Prasad, Sandeep Das, R. Sreehari, P.S. Easa & K.A. Sreejith, Pp. 8379–8382

Descriptions of four new species of *Dicopomorpha* Ogloblin (Hymenoptera: Chalcidoidea: Mymaridae) from India with a key to Indian species
-- A. Rameshkumar & S. Manickavasagam, Pp. 8383–8388

Taxonomic studies on Acridinae (Orthoptera: Acridoidea: Acrididae) from the northeastern states of India
-- Mohammed Imran Khan & Mohammed Kamil Usmani, Pp. 8389–8397

***Magnolia lanuginosa* (Wall.) Figlar & Noot. in West Khasi Hills of Meghalaya, northeastern India: re-collection and implications for conservation**
-- Aabid Hussain Mir, Viheno Iralu, Ngakhainii Trune Pao, Gunjana Chaudhury, Clarence G. Khonglah, K.L. Chaudhary, B.K. Tiwari & Krishna Upadhaya, Pp. 8398–8402

Three species of *Phallus* (Basidiomycota: Agaricomycetes: Phallaceae) from Jammu & Kashmir, India
-- Harpreet Kour, Rigzin Yangdol, Sanjeev Kumar & Yash Pal Sharma, Pp. 8403–8409

Notes

Dusky Warbler *Phylloscopus fuscatus* (Aves: Passeriformes: Sylviidae) in Sanjay Gandhi National Park, Maharashtra - a rare record for peninsular India
-- Parvish Pandya, Vikrant Choursiya & Jyoti James, Pp. 8410–8411

***Oberonia mucronata* (D. Don) Ormerod & Seidenf. (Orchidaceae), new addition to the flora of Gujarat, India**
-- Mital R. Bhatt & Padamnabhi S. Nagar, Pp. 8412–8414

Response & Reply

Comments on the list of marine mammals from Kerala
-- R.P. Kumarran, Pp. 8415–8416

Checklist of Marine Mammals of Kerala - a reply to Kumarran (2016) and the updated Checklist of Marine Mammals of Kerala
-- P.O. Nameer, Pp. 8417–8420