

**TRAFFIC**



# ORCHIDS

**FACTSHEET ON INDIA'S ORCHIDS  
IN ILLEGAL WILDLIFE TRADE**





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Orchids are one of the most prized ornamental plants traded as flowers and potted plants globally<sup>2,17</sup>. The term "orchid" has been derived from the Greek word "*orchis*",<sup>25</sup> and taxonomically, placed in the order Asparagales under Orchidaceae family. Orchids belong to the second-largest family of flowering plants, and there are more than 29,500 orchid species worldwide<sup>9</sup>.

IUCN Global Red List has assessed about 1641 orchid species (July 2020) of which 747 are categorised as 'Threatened' with 197 listed as 'Critically Endangered'<sup>8</sup>. India is home to 1,256 species belonging to 155 genera. Of these, 307 species are endemic to the country<sup>21</sup>.

## DO YOU KNOW?


- Orchids are hypoallergenic as their pollen is not airborne; instead, it is stored in a waxy substance, pollen packets called *pollinia*.
- Fossil evidence suggests that orchids emerged over 80 – 100 million years ago<sup>3</sup>.
- Orchids have the smallest seeds amongst the flowering plants in the world<sup>27</sup> and they are very difficult to grow requiring unique micro-habitats<sup>14</sup>.
- About 8% of all flowering plants are orchids<sup>13</sup>.
- Orchid species have been recognised for their medicinal properties in the ancient Indian therapeutic system of Ayurveda<sup>1</sup>.
- In India, Arunachal Pradesh is home to about 40% of orchid species in the country<sup>11</sup> and is often referred to as the 'Orchid Paradise of India.'

## ECOLOGICAL ROLE

Since orchids are highly sensitive to the climatic changes in their habitat and have extensive, interconnected symbiotic relationships with organisms like insects, plants, and fungi, their presence is a positive indicator of the healthy ecosystem

and the biodiversity of their habitat. Orchids play a vital ecological role by constituting a crucial element of any forest ecosystem through a highly complex mutual relation with other organisms<sup>22</sup>.

## SIZE, HABITAT, DISTRIBUTION AND POPULATION STATUS:

AVERAGE SIZE	HABITAT	DISTRIBUTION	POPULATION TREND <sup>19</sup>
<p>Orchid size can range from a pencil head to a vigorous two tonne shrub<sup>18</sup>.</p> <p>In India, <i>Oberonia recurva</i> is the smallest orchid while the Falconer's <i>Galeola falconeri</i> is the largest orchid species<sup>20</sup>.</p>	<p>Tropic to the alpine zone in forests, riverbanks, bamboo and palm thickets, grass slopes, and rocky areas<sup>5</sup>.</p>	<p>The Himalayan Region, the Peninsular Region and the Andaman and Nicobar Islands<sup>2</sup>.</p>	

## CONSERVATION STATUS

<p><b>INTERNATIONAL UNION FOR CONSERVATION OF NATURE (IUCN) RED LIST</b></p>	<p>Drury's Paphiopedilum <i>Paphiopedilum druryi</i> (Critically Endangered)            Fairrie's Paphiopedilum <i>Paphiopedilum fairrieianum</i> (Critically Endangered)            Charlesworth Paphiopedilum <i>Paphiopedilum charlesworthii</i> (Endangered)            Laddy's Slipper Orchid <i>Paphiopedilum venustum</i> (Endangered)            Spicer's Paphiopedilum <i>Paphiopedilum spicerianum</i> (Endangered)            Splendid Paphiopedilum <i>Paphiopedilum insigne</i> (Endangered)            Ward's Paphiopedilum <i>Paphiopedilum wardii</i> (Endangered)            Villose Paphiopedilum <i>Paphiopedilum villosum</i> (Vulnerable)            Shaggy Paphiopedilum <i>Paphiopedilum hirsutissimum</i> (Vulnerable)</p> <p><i>#Besides the above-mentioned genera, the orchid species listed in the other 154 genera are also listed under various threatened categories of the IUCN.</i><sup>12</sup></p>
<p><b>WILDLIFE (PROTECTION) ACT, 1972</b></p>	<p><u>Schedule VI:</u>            Blue Vanda <i>Vanda coerulea</i>, Red Vanda <i>Renanthera imschootiana</i>, Ladies slipper orchids <i>Paphiopedilum</i> spp. (all 9 species)- (<i>Paphiopedilum charlesworthii</i>, <i>P. druryi</i>, <i>P. fairrieianum</i>, <i>P. hirsutissimum</i>, <i>P. insigne</i>, <i>P. spicerianum</i>, <i>P. venustum</i>, <i>P. villosum</i>, <i>P. wardii</i>)</p>
<p><b>CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA (CITES)</b></p>	<p><u>Appendix I:</u> Pigeon orchid <i>Dendrobium cruentum</i>, Ladies slipper orchids <i>Paphiopedilum</i> spp., Red Vanda <i>Renanthera imschootiana</i>  <u>Appendix II:</u> Orchidaceae spp. i.e all species excluding the species included in Appendix I.</p>
<p><b>EXPORT IMPORT (EXIM) POLICY</b></p>	<p>Blue vanda <i>Vanda coerulea</i>, <i>Dactylorhiza hatagirea</i>, Ladies slipper orchid <i>Paphiopedilum</i> species, Red vanda <i>Renanthera imschootiana</i>, Orchids Orchidaceae species</p> <p>Exports of plants and plant portions of wild origin, of species specified in the Export Licensing Note 1 is prohibited.</p> <p>A special exemption can be granted for research, education, and life-saving drugs on a case-by-case basis by DGFT, on the recommendation of the Ministry of Environment, Forests and Climate Change.</p>

# THREATS

## HABITAT DESTRUCTION AND FRAGMENTATION

One of the most pertinent threats to orchids today is habitat destruction and degradation<sup>14</sup>. Climate change too, is harming the species as it has a

significant impact on pollination services and affects the plant communities where orchids exist<sup>6</sup>.

## OVER HARVESTING FOR ILLEGAL WILDLIFE TRADE

Orchids are one of the most threatened flowering plants in the world. Illegal harvesting and overexploitation pose a severe threat with species like *Renanthera* spp and a few slipper orchids such as *Cypripedium*, *Paphiopedilum*, showing significant impact from the practice<sup>4</sup>.

Orchids are illegally collected and traded for ornamental plants, traditional medicine, and food<sup>10</sup>. The increasing demand for it is leading to unsustainable harvesting practices. Orchids like *Eulophia dabia*<sup>15</sup> and *Dactylophiza hatagirea* populations are succumbing to overharvesting<sup>16</sup>.

*Crepidium acuminatum*, *Habenaria edgeworthii* and *Habenaria intermedia* are collected from the wild for their medicinal use. They are used in making Chyawanprash, a popular dietary supplement in India.

Protected species of orchids such as Blue Vanda, Ladies Slipper have been seized in India with seizures reported in West Bengal<sup>24</sup> and Assam<sup>23</sup> and by Department of Revenue Intelligence (DRI)<sup>7</sup>.

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are one of  
the most  
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# CONSERVATION EFFORTS

Sessa Orchid Sanctuary, in West Kameng District, Arunachal Pradesh, has been established to conserve the orchid species of the region along with an Orchid Research and Development Centre to study and preserve the species.

In 2020, IUCN, in collaboration with the Government of Arunachal Pradesh, launched the "IUCN Red-Listing Process of Orchids species assessment in Arunachal Pradesh" as a short-term objective towards evaluating the more than 600 unique and diverse Orchid species of the state.

## SECURING THE FUTURE OF ORCHIDS IN INDIA

1. Raise awareness among local people to encourage them to preserve the wild orchid species in their area.

2. Promote sustainable and traceable use of threatened orchids in legally permitted areas through village level Biodiversity Management Committees as an additional source of livelihood.

3. Include medicinally and ornamentally valuable orchids such as *Renanthera*, *Cypripedium*, *Paphiopedilum*, *Habenaria intermedia*, *H. pubescens*, *Eulophia dabia*, *Dactylorhiza hatagirea*, threatened by illegal trade and overexploitation the various Schedules of Wildlife (Protection) Act, 1972 of India for protection and to restrain their overharvesting from the wild.



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TRAFFIC is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

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