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Orchids of Georgia

Keywords

Orchidaceae; Caucasus, Georgia; distribution; ecology; endangerment; protection.

Zusammenfassung

Akhalkatsi, M., Kimeridze, M., Künkele, S., Lorenz, R. & M. Mosulishvili (2001): Die Orchideen von Georgia.- Jour. Eur. Orch. 33 (1): 457-458.

Der Stand der Kenntnisse über die Orchideenflora von Georgia (Kaukasus) wird zusammengefasst. Bisher konnten 48 Arten nachgewiesen werden. Viele Taxa gelten aufgrund anthropogener Einflüsse als gefährdet. Zum besseren Verständnis der georgischen Orchideenflora und zu ihrem Schutz sind neue Arbeiten über ihre Verbreitung, Ökologie, Biologie und entwicklungsgeschichtlichen Verhältnisse erforderlich.

Abstract

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Caucasus represents the eastern boundary of distribution for many European terrestrial orchids. In spite of the fact that this region is characterized by high endemism and is considered to be one of the 25 hot spots of biodiversity worldwide, the family Orchidaceae contains only few endemic species with wider areas of distribution entered in the adjacent regions as Asia Minor or Northern Caucasus.

Georgia is located in Transcaucasus and includes the steep southern slopes of the Greater Caucasus range in the north, the mountain region of Lesser Caucasus in the south and several valleys located between two mountain systems. It lies between the Black Sea from western and is stretched towards the Caspian Sea to eastern and adjoins Russia in the north, Azerbaijan in the

east and Turkey in the southwest and Armenia in the southeast. Georgia covers an area of 69.500 km². It presents of great variety of widely contrasting landforms, which occur in close proximity and range from subtropical forests to dry desert-steppes from the Black Sea to the east. The Rioni lowland in the west - Colchis has subtropical climate, with a warm winter. The circumstance of moisture-laden winds from the Black Sea makes the local climate unlike the Mediterranean type, and classifies it rather with the monsoon climates of East Asia (Japan and southern China). In sharp contrast to this region is Eastern and southern Georgia with a more continental climate, due to the barrier of the Surami range, which bars the warm Black Sea winds from this area. The geographically Caucasian region belongs to three different phytogeographic provinces - Euxine and Caucasian provinces belonging to Circumboreal Region, Boreal Subkingdom and Armeno-Iranian Province belonging to Irano-Turanian Region, Tethyan (Mediterranean) Subkingdom.

Ancient Georgian manuscripts and special medical books contain information on various herbs. The first serious scientific information concerning the vegetation of Georgia has given by Vakhushti Bagrationi (18th century). Since that time foreign scientists became interested in the extreme diversity of Georgian vegetation and flora. It is of interest that many European orchids were first described in Georgia or Azerbaijan. Many types and isotypes from Caucasus are nowadays kept in the herbariums of St.Peterburg or Tbilisi (TBI and TGM). Occurrence of 48 terrestrial orchid species is currently confirmed for Georgia. Different authors mention some more ten species but these data need further confirmation. During last few years the rediscovery of 3 extremely rare species; and the discovery of 4 new for Georgia species took place.

The distribution of orchids in Georgia is studied insufficient. An attempt is undertaken to create the distributional maps in UTM 50- and 10- km² grids. Natural hybrids between orchid species have been frequently observed and described, both within and between genera. Very few reserves exist to protect the unique habitats of orchids in Georgia. Many species are threatened due to extreme anthropogenic impacts in different regions of Georgia. The major negative factors represent grazing and herbivory leading to the extreme diminishing of the individuals within the populations. An increase in the knowledge of the distribution, ecology, life history, and evolutionary relationships of Georgian orchids is needed for a better understanding of the origins and relationships among different species of terrestrial orchids.

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