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BIO ECOLOGICAL PROPERTIES OF IRIS PSEUDACORUS L

Savutova Malohat Erkinovna*

*Magistr of Urgench State University,
UZBEKISTAN
Email id: s_malohat1978@mail.ru

ABSTRACT

The article describes bioecological features, morphological structure, distribution in nature, vegetation period and methods of reproduction of Iris pseudacorus L. The links of the rhizome of the current year are covered with leaf sheaths and the remnants of dead leaves of the generation of the last year, from below they bear a beard of adventitious roots, which die off every year. The complete absence of watering causes a slight decrease in morphometric indicators and almost excludes self-seeding, however, flowering and ripening of seeds, in this case, occurs annually. Thus, we have established the duration of the pregenerative period of ontogeny of I. pseudacorus under the conditions of the steppe zone culture (3 years) and the period of decorativeness of individuals (5–7 years).

KEYWORDS: *Iris, Irispseudacorus L., In-Situ, Ex-Situ, Bioecological Features, Morphologi. Vegetation Period, Introduction.*

INTRODUCTION

Despite the intensive efforts made in the world over the past twenty years, the process of loss of global biological diversity continues. Sustainable management of biological resources and their rational use requires urgent and decisive measures to conserve individual species and ecosystems. For this, at the national and international levels, it is necessary to strengthen the capacity in the field of study, systematic observation of biological diversity, to develop effective national measures to protect ecosystems in situ, to protect biological and genetic resources ex-situ and to improve the functioning of ecosystems [1].

Conservation and sustainable use of flora and fauna in Uzbekistan is one of the priority areas of state environmental policy. Effective protection of biodiversity components is inextricably linked with the degree of their knowledge. However, the degree of floristic knowledge of a number of

regions of Uzbekistan is insufficient. Since the publication of the last volume of "Flora of Uzbekistan", there has been no purposeful work to record new data.

I. pseudacorus was introduced by seeds obtained by delectus exchange in 2001 from France. In nature, it grows in swamps, along the banks and shallow waters of rivers and lakes in Atlantic and Central Europe, the Caucasus, Western Siberia, the Mediterranean and Asia Minor, while the rhizome is usually submerged in water, leaves and flower stalks are above the water (Fedchenko, 1935; Encyclopedia ... , 2017). However, when cultivated in arid conditions [7].

The history of introduction of 44 species of the genus Iris growing in Russia is analyzed. Chronology of introduction is given for 20 of them.

All species of the genus Iris L. of the flora of Russia are of interest for introduction and selection, almost all of them are grown in gardens; most of them have been tested with positive results. At the beginning, the introduction of irises into cultivation was of a collection nature (as for most other plants) and was aimed at both acquaintance with the diversity of natural forms and the initial testing of plants. Little is known about the history of the introduction of irises in Russia [2]. The purpose of this work is to give a brief summary of the history of the introduction of species of this genus. Some information about the cultivation of plants in the pre-Petrine period can be found in documents that speak of the state of vegetable gardens or gardens in which medicinal or any outlandish plants were grown, as well as in the analysis of lists of plants for medicinal gardens and orchards.

Iris pseudacorus, yellow flag, yellow iris or water flag is a species of flowering plants in the Iridaceae family. It is indigenous to Europe, West Asia, and Northwest Africa. Its specific epithet pseudacorus means "false calamus", referring to the similarity of its leaves to those of Acoruscalamus (sweet flag), as they have a noticeably veined middle of the rib and sword. -like shape. However, these two plants are not related [5].

This herbaceous flowering perennial plant grows to 100–150 cm (39–59 in) or the rare 2 m (6 ft 7 in) tall, with erect leaves up to 90 cm (35 in) long and 3 cm (1.2 in)) wide. The flowers are bright yellow, 7–10 cm (2.8–3.9 in) in diameter, with a typical iris shape. The fruit is a dry boll 4–7 cm (1.6–2.8 in) long, containing numerous pale brown seeds.

Under open-field culture, DBS I. pseudacorus is a perennial summer-green herbaceous short-rhizome-brush-root friable bunchy, sympodially growing, vegetatively sedentary polycarpic with a semi-rosette upright shoot. Leaves are light green, xiphoid, 2.5–3.2 cm wide, 47–75 cm long. Peduncle 50–70 cm tall, leafy, with 2–4 lateral branches each bearing 2–3 golden yellow flowers about 7 cm in diameter, 4 cm high. The fruit is a lower syncarpous three-nested capsule up to 8 cm long, the seeds are mostly semicircular, flattened, coffee-brown.

The rhizome is plagiotropic, reddish-pink on the cross section, consists of strongly thickened and shortened annual growths (links) 5–8 cm long and 2.5–3.5 cm in diameter. The links of the rhizome of the current year are covered with leaf sheaths and the remnants of dead leaves of the generation of the last year, from below they bear a beard of adventitious roots, which die off every year. The plagiotropic rhizome determines the loose bush type of branching, but in the arid conditions of Uzbekistan, the links of the I. pseudacorus rhizome are close together, as a result of which the plant approaches the dense bush type. By the nature of phenological development in the annual cycle, I. pseudacorus belongs to the spring-summer autumn-green species of late

spring-early summer flowering. The growing season begins after thawing of the soil, ends in early November. Blooms in May for 10 days.

The beginning of the growing season of I. pseudacorus is due to a thermal factor combined with a temporary factor, namely, an indicator of average daily air temperatures over a certain period of time. We consider the sum of average daily temperatures for the decade preceding the noted phenodate to be such a defining indicator. The lower limit that determines the beginning of the growing season of I. pseudacorus is the point of stable transition of average daily air temperatures through the + 10 ° C mark (while the sum of temperatures for the previous decade is at least + 100 ° C). A short-term increase in air temperature (less than a week), even significant, does not lead to the activation of growth processes.

I. pseudacorus grows best in very humid conditions and is often found in wetlands where it tolerates immersion in water, low pH, and anoxic soils. The plant spreads rapidly both due to rhizomes and due to water-dispersed seeds. It fills the same niche as Typha and often grows with it, albeit usually in shallower water. Although it is primarily an aquatic or marginal plant, the rhizomes can withstand prolonged dry conditions.

The large stands of I. pseudacorus in western Scotland are a very important feeding and breeding environment for the endangered corncrake.

I. pseudacorus is one of two species of irises native to the United Kingdom, the other is Iris foetidissima (fetid iris) [5].

Iris pseudacorus L. 1753, Sp. Pl .: 38. Described from Europe. For the first time in Russia, it was mentioned in culture in 1755 in the botanical garden of the Medical Academy in Moscow. In the same place since 1781 in P. Demidov's garden and near Moscow, in Gorenki since 1812.In the Pomological Garden of Regel and Kesselring in 1876-1917.live plants and seeds were offered for sale.

Iris austrotschatkalicaTojibaev, F. Karim.&Turgunov. The new species was first collected in 2010 in the low mountains of the Southern Chatkal (Uzbek part of the Chatkal Range). “Western Tien Shan.Southern slopes of the Chatkal ridge. Mount Ungor Tepa, 3 km north of the village of Poromon. Rocky slopes, 1200 m above sea level F.I. Karimov, M.D. Turgunov. TASH, iso - ALTB. The plants were planted at the collection site of the Botanical Garden of the Institute of the Gene Pool of Plant and Animal World of the Academy of Sciences of the Republic of Uzbekistan (Tashkent) ”[3, 30].

Thus, we have established the duration of the pregenerative period of ontogeny of I. pseudacorus under the conditions of the steppe zone culture (3 years) and the period of decorativeness of individuals (5–7 years). These data, together with data on seed productivity, will allow organizing the process of seed reproduction of this species and predicting the long-term existence of exposures with its participation.

To obtain a relatively small amount of planting material, I. pseudacorus should be propagated vegetatively - by dividing the rhizomes of virginal or generative individuals according to the number of fans in early spring (April - early May) or in larger fragments during summer-autumn dormancy (August - September).

The complete absence of watering causes a slight decrease in morphometric indicators and almost excludes self-seeding, however, flowering and ripening of seeds, in this case, occurs annually. Based on the research carried out, I. pseudacorus is recommended by us as a stable and unpretentious plant for wide use in green construction in Uzbekistan - for reservoirs, mixborders, rockeries and gravel gardens, as well as for cutting. In landscape-type expositions, it is well combined with cornflower, willow-leafed grass, Siberian iris, small-flowered large-flowered petals, middle bell, chalcedony lychnis, oriental poppy and other tall perennials.

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