

***Duchesnea indica* (Andr.) Focke, NEW ALIEN SPECIES IN THE FLORA OF MONTENEGRO****Igor TOMOVIĆ¹⁾ & Danijela STEŠEVIĆ¹⁾***¹⁾ Faculty of Sciences, University of Montenegro, Cetinjski put bb, 81 000 Podgorica, Montenegro

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According to two capital papers about the flora of Montenegro Rohlena (1942) & Pulević (2005) and recently published contributions to the flora of Montenegro (Stešević 2005, 2006a, 2006b, Hađia blahović 2006, etc.), we can conclude that record of *Duchesnea indica* (Andr.) Focke in Berane presents its first record for the flora of Montenegro.

This South East Asian ornamental plant belongs to family *Rosaceae*. It is characterized by perennial herbaceous form, with epigeal rooting stolons. Stem is up to 50cm; leaves are trifoliate, rather long petiolate, with obovate, crenate leaflets and lanceolate stipules; flowers are yellow, solitary nor or slightly exceeding the leaves; sepals are 10mm, epicalyx segments broadly ovate, exceeding the sepals; petals 8 mm; receptacle strongly, bright red, tasteless (Valentine 1968).


Due to its ecological preferences (Jackowiak 1992; Lauber & Wagner 2001) species mostly inhabits relatively moist, nitrophilous and shaded habitats.

At the first sight it looks like native strawberry. Characters that clearly distinguish these species are given in table below:

Native strawberry (<i>Fragaria</i>)	Indian strawberry (<i>Duchesnea</i>)
Sepals are nearly equal	Outer sepals are bigger than inner
Flowers are white	Flowers are yellow
Fruits are juicy, sweet and with pleasant aroma	Fruits are juicy, sour and without aroma



Photos by: Danijela Stešević



Duchesnea has worldwide distribution. According to Weber (2003) geographical regions where it grows as native are: Northern Europe (Scandinavia: Finland, Norway, Sweden); British Isles; Central Europe (Austria, Benelux states, Denmark, France without the Mediterranean border, Germany, Switzerland); Southern Europe (Southern France, Greece, Italy, Spain); Eastern Europe (all European states east of Austria, Germany, Italy); European part of Russia, European part of Turkey, Mediterranean Islands; Northern Africa (Algeria, Egypt, Libya, Morocco); Tropical Africa (All African states between northern and southern Africa); Southern Africa (Lesotho, Namibia, South Africa, Swaziland); Temperate Asia (Middle East, China, Japan, Asian part of Russia); Tropical Asia (India, Sri Lanka, all states east of India and bordering the south of China, Malaysia, Indonesia, Philippines); Australia, New Zealand, Canada + Alaska; South-eastern USA (States of continental USA bordering the Gulf of Mexico: Alabama, Florida, Louisiana, Mississippi, eastern Texas); Western USA (States of continental USA bordering the Pacific Ocean); Remaining USA (All states of continental USA between western and south-eastern USA); Mexico; Tropical South America (all states of continental South America beyond Mexico and except Argentina, Chile, Uruguay); Chile; Argentina; Cape Verde; Canary + Madeira; Azores; South Atlantic Islands; Madagascar and Hawaii.

It is presumed that its introduction in Europe dates from the beginning of 19th Century (http://uk.encarta.msn.com/media_1481569451_781532557-1_1/Introduced_Species_in_Europe.html).

First record of *Duchesnea indica* for the territory of former Yugoslavia (village Turčin, near Varaždin in Croatia) was reported by Trinajskić (1973). In his opinion species started to spread spontaneously from Graz (Austria), via valley of river Drava. For current distribution of *Duchesnea* in Croatia see Flora Croatica Database (<http://hirc.botanic.hr/fcd/>).

Data about distribution of Indian strawberry in Slovenia are available in Jogan (2001).

In the region species is also reported in Serbia (Jovanović, 1994).

At the territory of Montenegro spontaneously growing population of *Duchesnea indica* is found in periurban area of Berane, at shady ruderal habitat type. Pathway of its arrival remains unknown. Considering the fact that in Berane and in surrounding area, Indian strawberry is not planted as ornamental plant, we exclude the possibility that it escaped from cultivation.

We believe that further data about distribution of *Duchesnea indica* in the region will help us to create precise hypothesis about the pathway of its arrival and spread over the territory of Montenegro.

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