

ALKALOIDS OF SOME *Magnolia* SPECIESR. Ziyaev, N. I. Shtonda, M. D. Sturua,  
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Continuing an investigation of alkaloids of plants of the *Magnolia* genus [1, 2], we have studied the alkaloid contents of six species of this genus introduced into the Botanical Garden of the Academy of Sciences, Republic of Uzbekistan. Each organ was investigated separately in various vegetation periods (Table 1).

TABLE 1. Alkaloid Contents of Plants of the *Magnolia* Genus

Plant organ	Vegetation period and date of collection	Alkaloid content (%)	Isolated substances
<b><i>M. soulangeana</i> Soul-Bod.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.125	Anonaine, remerine
Green leaves	Beginning of leaf fall, 20.10.92	0.095	Remerine, liriodenine
Yellowed leaves	"	0.028	Remerine, liriodenine
Naturally shed leaves	End of leaf fall, 09.11.92	Tr.	
Young branches with bark	Vegetation period, 2.09.74	0.14	Remerine [1], liriodenine
<b><i>M. kobus</i> DC.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.31	Oxolaurenine, remerine [2], liriodenine, asimilobine, syringaresinol
Green leaves	Beginning of leaf fall, 20.10.92	0.15	Remerine, anonaine, liriodenine, lanuginosine
Yellowed leaves	"	0.105	Liriodenine, remerine
Naturally shed leaves	End of leaf fall, 09.11.92	0.018	
Young branches without bark	Full maturation of leaves, 19.06.92	0.12	Liriodenine [2]
Bark	"	0.18	
<b><i>M. grandiflora</i> L.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.58	Remerine, liriodenine
Young branches with bark	"	0.25	Liriodenine
<b><i>M. denudata</i> Desr.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.20	
Green leaves	Beginning of leaf fall, 20.10.92	0.10	
Yellowed leaves	"	0.035	
Naturally shed leaves	End of leaf fall, 09.11.92	Tr.	
Young branches with bark	Full maturation of leaves, 19.06.92	0.14	

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TABLE 1. (continued)

Plant organ	Vegetation period and date of collection	Alkaloid content (%)	Isolated substances
<b><i>M. tripeolata</i> L.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.25	
Green leaves	Beginning of leaf fall, 20.10.92	0.115	
Yellowed leaves	"	0.048	
<b><i>M. stelleri</i> (Sieb. et Zucc.) Maxim.</b>			
Leaves	Full maturation of leaves, 19.06.92	0.115	
Green leaves	Beginning of leaf fall, 20.10.92	0.085	
Yellowed leaves	"	0.040	
Young branches with bark	Full maturation of leaves, 19.06.92	0.12	

The total amounts of alkaloids in the plants were determined by the usual chloroform method after the wetting of the raw material with 10% ammonia solution. The results showed that the highest alkaloid contents of the leaves were present in those of *Magnolia grandiflora* L. (0.58%) and the lowest in those of *M. stellata* (0.11%). Young braches of all the *Magnolia* species contained 0.096—0.23% of alkaloids, while the yellowed leaves of autumn contained the smallest total amount of alkaloids. Traces of the bases were observed in naturally shed leaves.

We have also studied the alkaloid composition of the leaves of *M. obovata* Thunb. gathered in the Batumi Botanical Garden (Georgia) and have isolated liriodenine, remerine, anonaine, glaucine, and isolaurenine N-oxide.

#### REFERENCES

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