

finding of the species *Lecanosticta acicola* (sample Dot 40) was genetically confirmed which was earlier identified morphologically. Samples Dot 9 and Dot 35 are assumed to be *Neocatenulostroma germanicum*, but DNA sequencing must be used to determine the exact species of these samples.

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THE CONTENT OF CHLOROPHYLL AND CAROTENOIDS IN LEAVES OF THE DANDELION *TARAXACUM OFFICINALE*

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Anthropogenic environmental pollution is a factor that plants are not evolutionarily adapted. Thus for early diagnostics penury it is advisable to use bioindication methods based on indicators that directly or indirectly characterize the course of metabolic processes in autotrophic plants. In particular, the indicators of the photosynthetic apparatus of plants are informative, since the amount of pigments in tissues determines their functional state and changes that occur during growth, development, and stress [1-4].

Wild plants are easily available cheap raw materials. One of which is dandelion officinalis.

Purpose of research – compare the state of the pigment complex (content of chlorophyll *a* and *b*, carotenoids) of the medicinal dandelion (*Taraxacum officinale*).

Material and methods. The study material was the leaves dandelion of the medicinal dandelion *T. officinale* collected in the period of flowering and fruiting on the territory of 3 different districts of Vitebsk region, the research was conducted in 3 series (№ 1 – freshly prepared extracts with an ethanol content of 70%, № 2 – measurement after 1 day, № 3 – after 7 days). The concentration of pigments in the solution is calculated using the Werner formula. The total carotenoid content is calculated using the Wettstein formula [5].

Findings and their discussion. The results of photosynthetic pigment content in dandelion leaves are shown in table №1.

As can be seen from table №1, the most content of photosynthetic pigments is observed in freshly prepared extracts (series № 1). With time, the content of photopigments decreases by 1.4; 1.6 and 1.8 in extracts of the 3 series compared with 1.

Table 1 – Content of photopigments in dandelion leaves g / mg of raw materials ($M \pm m$)

Index	Braslav district		
	Series №1	Series №2	Series №3
Chlorophyll <i>a</i> content per 1 g of raw material, mg	8,33±0,13	8,08±0,07	7,03±0,14*
Chlorophyll <i>b</i> content per 1 g of raw material, mg	7,16±0,07	5,18±0,02*	4,15±0,07
Content of carotenoids per 1 g of raw material, mg	10,11±0,03	8,98±0,08	5,80±0,01*
	Gluboksky district		
	Series №1	Series №2	Series №3
Chlorophyll <i>a</i> content per 1 g of raw material, mg	8,09±0,05	6,75±0,06	6,19±0,05*
Chlorophyll <i>b</i> content per 1 g of raw material, mg	6,22±0,08	5,72±0,18	3,13±0,02*
Content of carotenoids per 1 g of raw material, mg	11,1±0,03	10,98±0,08	5,80±0,01*
	Vitebsk district		
	Series №1	Series №2	Series №3
Chlorophyll <i>a</i> content per 1 g of raw material, mg	8,38±0,10	7,38±0,01*	5,84±0,05*
Chlorophyll <i>b</i> content per 1 g of raw material, mg	7,90±0,04	6,33±0,10*	4,99±0,02*
Content of carotenoids per 1 g of raw material, mg	7,62±0,11	6,75±0,03*	5,95±0,01*

Note: * - $p \leq 0.05$ compared to batch №1 from dandelion officinalis leaves.

Markers of anthropogenic impact on the environment are the relations « $C_a : C_b$ » and « $(C_{a+b}) : C_c$ ». When the atmosphere is polluted, as a rule, the first of the presented ratios is minimal, the second – maximum. Table 2 shows the experimentally obtained ratio of photosynthetic pigments in the leaves of the dandelion.

Table 2 – The ratio of "chlorophyll *a*: chlorophyll *b*" and "chlorophyll: carotenoids" in dandelion leaves

Sampling area	$C_a : C_b$	$(C_{a+b}) : C_c$
Braslav district	8,33/7,16	15,49/10,11
Gluboksky district	8,09/6,22	14,31/11,1
Vitebsk district	8,38/7,90	16,28/7,62

From the data table.2 it follows that the ratio « $C_a : C_b$ » in the investigated extracts in was the smallest in the Vitebsk region, while the corresponding value « $(C_{a+b}) : C_c$ » was characterized by the maximum value, which confirms that the plants of Vitebsk are exposed to the greatest negative anthropogenic impact in comparison with Braslav and Glubokoe districts.

Conclusion. Thus, based on the analysis of the results obtained, it can be concluded that the state of the pigment complex (the content of chlorophyll *a* and *b*, carotenoids) in extracts of dandelion leaves can be a marker for assessing the degree of anthropogenic impact on the ecosystem.

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THE ECOLOGICAL FEATURES OF APPLYING X-RAY CONTRAST PREPARATIONS IN RADIATION DIAGNOSTICS

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Currently, various X-ray techniques are used to diagnose many diseases. The contribution of modern methods of radiation diagnostics to medical practice is very great. Diagnosis of most diseases is based on methods of medical imaging. The most notable advances in the field of radiation diagnostics in recent years are the development of endovascular surgery and digital radiology [1]. The approaches to the use of X-ray research methods with the use of X-ray contrast agents have largely changed, taking into account the occurrence of side reactions and complications. Despite the recent emergence of new less toxic drugs the problem of the safety of their use remains very urgent [2].

Purpose of the study: to determine the incidence of contrast-induced complications and allergic reactions in patients with different diagnoses. Evaluate risk factors for severe side effects. Suggest methods to prevent them.

Materials and methods. The objects of the study were "Medical records of an inpatient" form N 003 / y-07 and recorded information on the occurrence of