

Farida Kuldasheva, PhD student, senior lecturer, Tashkent state agrarian university, Uzbekistan

MORPHOMETRIC SIGNS OF COPPER BEES UNDER THE CONDITIONS OF UZBEKISTAN

F.Kuldasheva

Abstract: the results of a morphometric analysis of honey bees in Uzbekistan are presented. The different nature of the seasonal variability of the exterior signs of honey bees in different zones of the Tashkent region, the influence on their manifestation of external environmental conditions was studied.

Keywords: morphometric analysis, cubital index, torsal index, width, wing length, proboscis length, mass of working bees, working bee, front wings, hind wings.

The relevance of the work. Carpathian bees won the sympathy of many beekeepers and began to be massively used in apiaries of the Republic of Uzbekistan. There are several factors which contributed to this case. Firstly, high market demand, secondly, the ability to efficiently breed, and thirdly, high honey productivity compared to local bees. Carpathian bees bred in our country come from the mountainous regions of Transcarpathia. Annually, about 1,500 fetal pedigree queens of the Carpathian breed of the 77th line, mainly pedigree apiaries of V. A. Gaidar from the Transcarpathian region of Ukraine, enter the Republic of Uzbekistan, especially the Ferghana Valley [1].

In this regard, the question of studying various aspects of the vital activity of bees of this breed, especially seasonal variability, is an acute issue. Recently, the natural conditions affecting the life of bee colonies has undergone a significant change under the influence of humans. Bees often do not have time to adapt to them, and as a result, local breeds are less adapted to climate variability than imported ones [2].

A.N. Melnichenko (1978), V. G. Kashkovsky (1989), believe that during the acclimatization of animals, first of all, behavior changes, and then the exterior [3]. In this connection, for the purpose of work, it was to study the seasonal variability of morphometric characters of working individuals of Carpathian bees in conditions in the mountain and steppe zones of the Tashkent region.

Research Methodology. In the steppe and mountain soil-landscape zone of the Tashkent region in the summer of 2018-2019, an analysis of the morphometric characteristics of working bees was carried out. For this, we selected two apiaries from the steppe Kibray district and the mountain Parkent district of Tashkent region.

The taxonomic affiliation of working bees was established according to the generally accepted method [4], 10 standard exterior features were measured: proboscis length, length and width of the front wing, length and width of the 3rd to 4th tergites, number of leads on the hind wing, and cubital index. The results were compared with the standard of the Carpathian breed - *Apis mellifera carpatica*. Bee samples were taken from 10 families in the mountain apiary and from 10 families in the steppe apiary. 50 bees were selected, they were fixed with boiling water, and then they were stored in 70% alcohol. A total of 700 bees were examined. The data obtained were compared according to the method of V. A. Gubin (1976) morphological signs of Carpathian bees [5].

Processing of samples was carried out in the laboratory "Beekeeping" of the scientific research institute of livestock and poultry of the Republic of Uzbekistan. MBS-10 binocular microscope was used to measure the samples; statistical data processing was performed in the Microsoft EXCEL - 2007 program.

The results of the study. We were able to trace the difference between the bees of the mountain and steppe zones, as well as the seasonal variability of the exterior features within each group. The comparison was carried out with bees grown in the mountain and steppe zones in the summer. The results of morphometric measurements of working bees in the mountain and steppe zones of the Tashkent region are shown in the table.

Table 1

The results of morphometric measurements of working bees in the mountain and steppe zone of the Tashkent region

Signs	Carpathian breed standard	Regions			
		Mountain Parkent		Steppe Kybray	
		M±m	Cv, %	M±m	Cv, %
Proboscis length, mm	6,6-7,0	6,73±0,02	2,13	6,72±0,01	2,35
Front wing length, mm	9,6-10,0	9,7±0,04		9,6±0,03	
Front wing width, mm	3,2-3,5	3,18±0,03		3,08±0,01	
Cubital index,%	2,3-3,0 (45-50%)	46,6±0,49	12,36	45,7±0,39	12,26
The number of leads on the rear wing, pcs	19-22	21,27±0,16	7,6	21,38±0,19	8,2

The length of the 3rd tergite, mm	2,2-2,5	2,48±0,01	1,15	2,52±0,02	1,16
Width of 3rd tergite, mm	4,4-5,1	4,85±0,01	3,55	4,77±0,01	3,09
The length of the 4th tergite, mm	2,1-2,4	2,09±0,01	1,10	2,20±0,02	1,11
Width of 4th tergite, mm	4,3-5,0	4,50±0,02	3,01	4,55±0,021	3,12
Weight, mg	104-110	109,2±1,12		107,1±1,09	
Discoidal mixing,%	No less than 85 Typically 95-100	90		82	

According to the data, it can be seen that in bees growing in the mountain zone in summer, the proboscis length was 6.73 mm, the wing size was 9.7-3.18 mm, the size of the third tergite was 2.48-4.85, the discoid displacement was 90, and the cubital index significantly increased than bees in the steppe zone. The size of tergite 4 decreased than that of bees in the steppe zone and amounted to 2.09-4.50 mm. The average weight of working individuals was 109.2 mg. A completely different nature of the variability of exterior features is present in bees of the steppe zone. Here, depending on the timing of withdrawal, only the sizes of the 4th tergite were observed, the number of hooks on the hind wing was greater than the mountain zone, all dimensional signs decreased, with the exception of the 4th tergite and the number of hooks, in the bees grown in summer all sizes of signs were significantly smaller than the bees mountain zone.

Conclusions: all of the above suggests that the honeybees of the mountain zone were larger than the steppe. In our opinion, such a course of variability of exterior features in different zones is explained primarily by the different duration of the beekeeping season: if in the mountain zone the period of sampling of bees covered the entire active season of their life, then in the steppe zone it fell only in the middle. In addition, this is apparently due to the different locations of apiaries above sea level; in the mountain zone, apiaries are located much higher, so the bees here developed in more severe climatic conditions.

Thus, it can be said that the nature of local and seasonal variability of exterior features in Carpathian bees from the mountain and steppe zones is different.

References:

1. Суяркулов Ш.Р. «Карпатки Ферганской долины» ж. «Пчеловодство», №6, 2010

2. Гайдар В.А., Левченко И.А. «Сравнительная оценка карпатских и украинских пчел» ж. «Пчеловодство», №8, 2003
3. Земскова Н.Е., Саттаров В.Н., Туктаров В.Р. «Состояние и сохранность медоносных пчел на территории Крыма» ж. «Пчеловодство», №5, 2016
4. Алпатов В.В. Породы медоносной пчелы. - М: Колос, 1948
5. Гайдар В.А. «Морфо этологический стандарт карпатских пчел» ж. «Пчеловодство», №6, 2004

Mamajonov Dilshodbek Adxamovich lecturer, Yuldashev Rashid
Yigitaliyevich lecturer, Namangan State University, Uzbekistan
**THE ROLE AND IMPORTANCE OF ORGANIZATIONAL PRINCIPLES IN
OLYMPIC EDUCATION**
D.Mamajonov, R.Yuldashev

Abstract: This article examines the principles of advocacy and their importance in the organization of Olympic education, and provides conclusions and practical recommendations. Olympic education, with its educational features, requires specific organizational principles and plays a special role in the organization of this educational process.

Keywords: Olympic education, Olympism, Olympic values, Olympic movement, principles of propaganda

It is necessary to involve young people in sports, as well as to promote the humane ideas and values of sports. In doing so, first and foremost, the athlete must cultivate a person, a citizen, who can defend the honor of the homeland, fight honestly, resist rudeness, greed, use of force and evil which truly destroy both sports, society and the individual (Author's Team, 2017).

Today, the education of young people is undergoing great changes, and new directions are emerging in education. One of these areas is Olympic education.

The concept of Olympic education was first formulated in 1968 at the 8th session of the International Olympic Academy and has since been regarded as one of the types of humanitarian education (Ivanov, 2011).

Today, every city that is bidding for an Olympic Games is required to outline its plans for an Olympic education initiative. Theoretically these initiatives should be based on the shared values of the Olympic Movement. The challenge for all who believe that sport and physical activity provide a