

JANUBIY FARG'ONA AGROTSENOZLARI TUNLAM KAPALAKLARI (LEPIDOPTERA: NOCTUIDAE) FAUNASI VA EKOLOGIK XUSUSIYATLARI

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ANNOTATSIYA

Janubiy Farg'ona xududining agrosenozlarida tunlam kapalaklar (Noctuidae) oilasining 28 avlodiga mansub 50 ta turlari uchraydi. Tunlam kapalaklarning 10 ta turi bahorgi-yozgi, 9 ta tur bahorgi-kuzgi, 2 ta tur erta yozgi, 3 ta tur polisiklik, 9 ta tur yozgi, 11 ta tur kapalaklar yozgi-kuzgi ekologik guruhlarga mansub. Janubiy Farg'ona tunlam kapalaklarining 16 ta yoki 32 % ni mezofillar, 13 ta yoki 26 % ni evribiontlar, 13 ta yoki 26 % ni gemikserofillar, 8 ta yoki 16 % ni gigrofillar tashkil etadi. Tunlam kapalaklarning ozuqaga ixtisoslashuviga ko'ra 60 % turlari polifaglardan iborat. Oligofaglarning tur soni 15 ta bo'lib, ulushi 30 % ni tashkil etadi. Monofaglar esa 5 ta turdan iborat bo'lib, faunadagi ulushi 10 % ga teng.

Kalit so'zlar: Janubiy Farg'ona, agrosenoz, kapalak, polifag, oligofag, monofag, mezofil, evribiont, gemikserofil, gigrofil.

ABSTRACT

In the agrocenoses of South Fergana, there are 50 species belonging to 28 genera of the Noctuidae family. 10 species of butterflies belong to the spring-summer, 9 species to the spring-autumn, 2 species to the early summer, 3 species to the polycyclic, 9 species to the summer, 11 species to the summer-autumn ecological group. 16 (32%) butterflies are mesophiles, 13 (26%) are eurybionts, 13 (26%) are hemixirophiles, and 8 (16%) are hygrophiles. 60% of butterfly species are polyphages in food specialization. There are 15 types of oligophages, with a share of 30%. Monophages consist of 5 species with a share of 10% in the fauna.

Keywords: South Fergana, agrocenosis, butterfly, polyphage, oligophage, monophage, mesophile, eurybiont, hemixerophile, hygrophile.

KIRISH

Tangachaqanotli hasharotlar (Lepidoptera) turkumining tunlam kapalaklar (Noctuidae) oilasi 12 mingga yaqin turlarga

ega bo‘lib, hasharotlar sinfining eng ko‘p turga ega oilalaridan hisoblanadi [2]. Mazkur hasharotlar mamlakatimiz faunasida ham alohida ahamiyatga ega bo‘lib, ular orasida tabiiy landshaftlar hamda antropogen ekotizimlarni afzal ko‘radigan o‘ziga xos ixtisoslashgan guruxlar, shuningdek, o‘ta plastik evribiontlar va keng polifaglar, shu jumladan qishloq xo‘jaligi ekinlarining jiddiy zararkunandalari mavjud. Dunyo olimlarining iqlim o‘zgarishi oqibatlarini o‘rganish bo‘yicha zarakunanda tangachaqanotlilar misolida o‘tkazgan tadqiqotlari natijalari, kelgusida fitofag hasharotlarni geografik mintaqalar bo‘ylab jadal tarqalishi va arealining kengayishini hamda hayot siklidagi o‘zgarishlar sababli, avlodlari sonining ortishini bashorat qilmoqda[8]. Shundan kelib chiqib, Farg‘ona vodiysi agrosenozlari strukturasi hamda entomofunasi tarkibida, shuningdek, ozuqa zanjirida sodir bo‘layotgan o‘zgarishlarni kompleks o‘rganish, zararkunanda turlar populyasiya zichligining mavsumiy hamda ko‘p yillik o‘zgarishlarini bashorat qilish bo‘yicha tizimli tadqiqotlarni amalga oshirish dolzarb ilmiy-amaliy ahamiyat kasb etadi.

ADABIYOTLAR TAHLILI VA METODOLOGIYA

Janubiy Farg‘ona agrosenozlarining tunlam kapalaklari faunasi kompleks o‘rganilmagan. Xususan, X.Mustofoqulovning ishlarida (1992) Farg‘ona vodiysida g‘o‘za, tamaki va shaftoli bog‘ agrosenozlari asosiy zararkunandalari hisoblangan g‘o‘za tunlami hamda kuzgi tunlamni miqdor zichligini entomofaglar vositasida boshqarish uslublari yoritib berilgan. A.Jabborov tomonidan (1997) Farg‘ona vodiysida karam va tomat agrosenozlari asosiy zararkunandalarining ekologiyasini o‘rganish bo‘yicha olib borilgan tadqiqotlarda, tangachaqanotli hasharotlardan g‘o‘za tunlamining bioekologik xususiyatlari o‘rganilib, miqdor zichligini boshqarishning ilmiy asoslari bayon etilgan. Markaziy Farg‘onaning sabzovot-poliz ekinlari entomofaunasini o‘rganishga bag‘ishlangan tadqiqotlarida sabzavot-poliz ekinlarida zararkunanda tangachaqanotlilarning 4 oilasiga mansub 29 turi, shu jumladan, tunlam kapalaklarning 23 turi uchrashligi qayd etilgan [1]. Shuningdek, tangachaqanotli hasharotlarni o‘rganishga oid so‘nggi tadqiqotlarda Farg‘ona vodiysi agroekotizimlarida tangachaqanotli hasharotlar (Lepidoptera) turkumining 26 oilasiga mansub 119 avlodini 161 tur va 1 kenja turi qayd etilgan [5; 6; 7].

Janubiy Farg‘onaning tunlam kapalaklari faunasini o‘rganish ishlari 2019-2022 yillar davomida Quvasoy shahri, Quva, Farg‘ona, So‘x tumanlari hududlaridagi agrosenozlarda olib borildi. Kapalaklarni yig‘ish asosan kechalari, tungi yoritgichli moslama yordamida amalga oshirildi. Yig‘ilgan kapalaklarni har bir turining erkak va urg‘ochi

individlaridan 2 tadan na'munasi ajratib olinib, kolleksiya tayyorlandi. Yig'ilgan materiallarni aniqlashda entomologik aniqlagichlar va elektron kataloglardan foydalanildi [3; 4; 9].

Na'munalar Farg'ona vodiysining janubiy sarhadlari bo'ylab Quva tumani Karkidon suv ombori atrofi (40°27'03"N, 72°03'32"E), Quvasoy shahri Kokilon (40°18'21"N, 71°54'40"E), Chinortagi qishloqlari (40°17'55"N, 71°57'18"E), Farg'ona tumani Vodil (40°10'26"N, 71°43'39"E), Satkak (40°24'41"N, 71°41'49"E), Chimyon (40°15'22"N, 71°33'23"E) qishloqlari, So'x tumani Qizilqiyoc (39°56'42"N, 71°5'53"E), Sarikanda (39°56'55"N, 71°7'48"E) qishlog'ining axoli tomorqalari va fermer xo'jaliklaridagi malina, makkajo'xori, jo'xori, beda, loviya, mosh, no'xot, soya, yer yong'oq, g'o'za, kartoshka, pomidor, shirin qalampir, karam kabi ekinzorlar va olxo'ri, olma, nok, shaftoli kabi mevali bog'lardan yig'ildi.

NATIJALAR

Olib borilgan tadqiqotlar natijalari asosida Janubiy Farg'ona xududining agrosenozlarida tunlam kapalaklar (Noctuidae) oilasining 28 avlodiga mansub 50 ta turlari qayd etildi. Har bir turning taksonomik o'rni, mavsumiy aspekti, ozuqa ixtisosligi va ekologik tasnifi o'rganildi (1-jadval).

1-jadval

Janubiy Farg'ona agrosenozlari tunlam kapalaklarining tur tarkibi va muhim ekologik xususiyatlari

№	Lotincha nomi	Mavsumiy aspekti	Ekologik guruhi	Ozuqa ixtisosligi
Agrotis Ochsenheimer, 1816 avlodi				
1.	<i>Agrotis segetum</i> Denis.et Schiff 1775	Bahorgi-yozgi	Gigrofil	Polifag
2.	<i>Agrotis exclamationis</i> Linnaeus, 1758	Erta yozgi	Evribiont	Polifag
3.	<i>Agrotis obesa</i> Boisduval, 1829	Kuzgi	Mezofil	Polifag
4.	<i>Agrotis ipsilon</i> Hufnagel, 1766	Bahorgi-yozgi	Evribiont	Polifag
5.	<i>Agrotis xanthographa</i> Denis.et Schiff.,1775	Bahorgi-yozgi	Gemikserofil	Polifag
6.	<i>Agrotis crassa</i> Hübner, 1803	Yozgi-kuzgi	Mezofil	Polifag
7.	<i>Agrotis clavis</i> Hufnagel, 1766	Erta yozgi	Mezofil	Monofag

Acronicta Ochsenheimer, 1816 avlodi				
8.	<i>Acronicta psi</i> Linnaeus, 1758	Yozgi	Gemikserofil	Oligofag
Mamestra Ochsenheimer, 1816 avlodi				
9.	<i>Mamestra brassicae</i> Linnaeus, 1758	Bahorgi-yozgi	Evribiont	Олигафар
10.	<i>Mamestra suasa</i> Schiffermuller, 1776	Yozgi-kuzgi	Mezofil	Polifag
11.	<i>Mamestra oleracea</i> Linnaeus, 1758	Yozgi-kuzgi	Evribiont	Polifag
Oria Hubner, 1821 avlodi				
12.	<i>Oria musculosa</i> Hübner, 1808		Mezofil	Oligofag
Xestia Hubner, 1818 avlodi				
13.	<i>Xestia c-nigrum</i> Linnaeus, 1758	Yozgi-kuzgi	Evribiont	Polifag
Diachrysia Hubner, 1821 avlodi				
14.	<i>Diachrysia chrysitis</i> Linnaeus, 1758	Yozgi-kuzgi	Mezofil	Polifag
Euxoa Hubner, 1821 avlodi				
15.	<i>Euxoa agricola</i> Boisduval, 1829	Yozgi	Evribiont	Polifag
16.	<i>Euxoa tritici</i> Linnaeus, 1761	Yozgi-kuzgi	Evribiont	Polifag
17.	<i>Euxoa cursoria</i> Hufnagel, 1766	Yozgi-kuzgi	Gemikserofil	Oligofag
18.	<i>Euxoa temera</i> Hubner, 1808	Kuzgi	Gemikserofil	Oligofag
Aporophyla Guenee, 1841 avlodi				
19.	<i>Aporophyla nigra</i> Haworth, 1809	Kuzgi	Mezofil	Oligofag
Ochropleura Hubner, 1821avlodi				
20.	<i>Dichagyris flammata</i> Denis.et Schiff, 1775	Bahorgi-yozgi	Mezofil	Oligofag
Helicoverpa Hardwick, 1965 avlodi				
21.	<i>Helicoverpa armigera</i> Hubner, 1808	Bahorgi-yozgi	Evribiont	Polifag
Autographa Hubner, 1821 avlodi				
22.	<i>Autographa gamma</i> Linnaeus, 1758	Bahorgi-yozgi	Evribiont	Polifag
Heliothis Ochsenheimer, 1816 avlodi				
23.	<i>Heliothis virescens</i> Hufnagel, 1766	Polisiklik	Mezofil	Polifag

24.	<i>Heliothis nubigera</i> Herrich-Schaffer, 1851	Bahorgi - kuzgi	Gemikserofil	Polifag
25.	<i>Heliothis peltigera</i> Schiffermuller, 1775	Bahorgi - kuzgi	Mezofil	Polifag
26.	<i>Heliothis maritima</i> Graslin, 1855	Yozgi	Mezofil	Polifag
Schinia Hubner, 1823 avlodi				
27.	<i>Schinia scutosa</i> Schiff, 1775	Yozgi-kuzgi	Mezofil	Monofag
Hadula Staudinger, 1889 avlodi				
28.	<i>Anarta trifolii</i> Hufnagel, 1766	Bahorgi - kuzgi	Gemikserofil	Oligofag
Noctua Linnaeus, 1758 avlodi				
29.	<i>Noctua orbona</i> Hufnagel, 1766	Bahorgi - kuzgi	Gemikserofil	Polifag
30.	<i>Noctua pronuba</i> Linnaeus, 1758	Bahorgi - kuzgi	Gemikserofil	Polifag
Spodoptera Guenee, 1852 avlodi				
31.	<i>Spodoptera exigua</i> Hubner, 1808	Yozgi-kuzgi	Gemikserofil	Polifag
32.	<i>Hydraecia micacea</i> Esper, 1789	Bahorgi - kuzgi	Gemikserofil	Polifag
Syngrapha Hubner, 1821 avlodi				
33.	<i>Syngrapha circumflexa</i> Linnaeus, 1767	Polisiklik	Evribiont	Polifag
Lacanobia Billberg, 1820 avlodi				
34.	<i>Lacanobia oleracea</i> Linnaeus, 1758	Polisiklik	Gigrofil	Polifag
35.	<i>Lacanobia suasa</i> Denis.et Schiff 1775	Bahorgi - kuzgi	Gigrofil	Polifag
Leucania Ochsenheimer, 1816 avlodi				
36.	<i>Leucania loreyi</i> Duponchel, 1827	Polisiklik	Gigrofil	Oligofag
37.	<i>Leucania zaeae</i> Duponchel, 1827	Yozgi	Mezofil	Oligofag
Mythimna Ochsenheimer, 1816 avlodi				
38.	<i>Mythimna vitellina</i> Hubner 1827	Bahorgi-yozgi	Gigrofil	Oligofag
39.	<i>Mythimna l-album</i> Linnaeus, 1767	Yozgi	Gigrofil	Oligofag
40.	<i>Mythimna unipuncta</i> Haworth, 1809	Polisiklik	Gigrofil	Polifag
Sesamia Guenee in Boisduval & Guenée, 1852 avlodi				

41.	<i>Sesamia cretica</i> Lederer, 1857	Polisiklik		Polifag
Cosmia Ochsenheimer, 1816 avlodi				
42.	<i>Cosmia pyralina</i> Denis & Schiffermüller, 1775	Yozgi	Mezofil	Polifag
43.	<i>Calymnia subtilis</i> Staudinger, 1888	Bahorgi - kuzgi	Mezofil	Monofag
Acronicta Ochsenheimer, 1816 avlodi				
44.	<i>Acronicta rumicis</i> Linnaeus, 1758	Bahorgi-yozgi	Gemikserofil	Polifag
Apamea Ochsenheimer, 1816 avlodi				
45.	<i>Apamea anceps</i> Denis & Schiffermüller, 1775	Yozgi	Evrribiont	Oligofag
Amphipoea Billberg, 1820 avlodi				
46.	<i>Amphipoea fucosa</i> Freyer, 1830	Yozgi-kuzgi	Evrribiont	Oligofag
Mesapamea Heinicke, 1959 avlodi				
47.	<i>Mesapamea secalis</i> Linnaeus, 1758	Yozgi	Mezofil	Monofag
Macdunnoughia Kostrowicki, 1961 avlodi				
48.	<i>Phytometra confusa</i> Stephens, 1850	Yozgi	Gigrofil	Polifag
Acontia Hubner, 1821 avlodi				
49.	<i>Emmelia trabealis</i> Scopoli, 1763	Bahorgi - kuzgi	Gemikserofil	Monofag
50.	<i>Acontia luctuosa</i> Denis & Schiffermüller, 1775	Yozgi-kuzgi	Gemikserofil	Oligofag

MUHOKAMA

Janubiy Farg'ona sharoitida tunlam kapalaklarning mavsumiy aspektlar bo'yicha taqsimlanishi tahlil etilganda, 10 ta tur kapalaklar (*Oria musculosa*, *Dichagyris flammata*, *Agrotis segetum*, *Agrotis ipsilon*, *Agrotis xanthographa*, *Mamestra brassicae*, *Helicoverpa armigera*, *Autographa gamma*, *Mythimna vitellina*, *Acronicta rumicis*) **bahorgi-yozgi** ekologik guruhga, 9 ta tur kapalaklar (*Heliothis nubigera*, *Heliothis peltigera*, *Anarta trifolii*, *Noctua orbona*, *Noctua pronuba*, *Hydraecia micacea*, *Lacanobia suasa*, *Calymnia subtilis*, *Emmelia trabealis*) **bahorgi-kuzgi**, 2 ta tur kapalak (*Agrotis exclamationis*, *Agrotis clavis*) **erta yozgi**, 3 ta tur kapalak (*Agrotis obesa*, *Euxoa temera*, *Aporophyla nigra*) **kuzgi**, 6 ta tur kapalaklar (*Heliothis viriplaca*, *Syngrapha circumflexa*, *Lacanobia oleracea*, *Leucania loreyi*, *Mythimna unipuncta*, *Sesamia cretica*) **polisiklik**, 9 ta tur kapalaklar (*Acronicta psi*, *Euxoa Agricola*, *Heliothis maritime*, *Leucania zea*, *Mythimna l-album*, *Cosmia pyralina*, *Apamea anceps*, *Mesapamea secalis*, *Phytometra confusa*) **yozgi**, 11 ta tur

kapalaklar (*Agrotis crassa*, *Mamestra suasa*, *Mamestra oleracea*, *Xestia c-nigrum*, *Diachrysia chrysitis*, *Euxoa tritici*, *Euxoa cursoria*, *Schinia scutosa*, *Spodoptera exigua*, *Amphipoea fucosa*, *Acontia luctuosa*) **yozgi-kuzgi** ekologik guruhga mansub ekanligi aniqlandi (1-jadval).

Tadqiqot natijalaridan ma'lum bo'lishicha, Janubiy Farg'ona tunlam kapalaklarining 16 ta yoki 32 % ni mezofillar tashkil etadi. Evribiontlar (26%) hamda gemikserofillar (26%) 13 tadan turlarni birlashtirib, ularning faunadagi ulushi ham teng taqsimlangan. Gigrofil ekologik guruhga mansub bo'lgan turlar 8 ta bo'lib, ularning faunadagi ulushi 16% ni tashkil etadi (1-jadval).

Tunlam kapalaklarning ozuqaga ixtisoslashuviga ko'ra 30 ta turlari yoki jami lepidopterofaunaning 60 % turlari polifaglardan iborat. Bu borada keyingi pog'onani oligofaglar egallaydi. Ularning tur soni 15 ta bo'lib, ulushi 30 % ni tashkil etadi. Monofaglar esa, eng kam – 5 ta turdan iborat bo'lib, faunadagi ulushi 10 % ga teng.

XULOSA

Janubiy Farg'ona xududining agrosenozlarida tunlam kapalaklar (Noctuidae) oilasining 28 avlodiga mansub 50 ta turlari uchraydi. Tunlam kapalaklarning 10 ta turi bahorgi-yozgi, 9 ta tur bahorgi-kuzgi, 2 ta tur erta yozgi, 3 ta tur polisiklik, 9 ta tur yozgi, 11 ta tur kapalaklar yozgi-kuzgi ekologik guruhlarga mansub. Janubiy Farg'ona tunlam kapalaklarining 16 ta yoki 32 % ni mezofillar, 13 ta yoki 26 % ni evribiontlarlar, 13 ta yoki 26 % ni gemikserofillar, 8 ta yoki 16 % ni gigrofillar tashkil etadi. Tunlam kapalaklarning ozuqaga ixtisoslashuviga ko'ra 60 % turlari polifaglardan iborat. Bu borada keyingi pog'onani oligofaglar egallaydi. Ularning tur soni 15 ta bo'lib, ulushi 30 % ni tashkil etadi. Monofaglar esa 5 ta turdan iborat bo'lib, faunadagi ulushi ham eng kam – 10 % ga teng.

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