

FARG'ONA VODIYSI SUV HAVZALARIDAGI BALIQLAR GELMINTLARI

Eldor Najmiddinov

Farg'ona davlat universiteti, b.f.b.f.d (PhD)

Adhamjon Rasujonov

Farg'ona davlat universiteti o'qituvchisi

Javohir Rahimov

Farg'ona davlat universiteti talabasi

<https://doi.org/10.5281/zenodo.7335759>

Annotatsiya. Ushbu maqoladagi tadqiqot ishimizning maqsadi Farg'ona vodiysi suv havzalarida ayrim baliqlardagi gelmintlarning turlar tarkibini sistematik jihatdan o'rganish hamda baliqlarni ekstensiv va intensiv zararlashi jarayonini o'rganishdan iboratdir. 2018-2019 yillarda olib borilgan tadqiqotlar davomida qorabaliq (Shir mohi – oddiy marinka) (*Schizothorax intermedius*) 42 dona, kumush tovonbaliq (*Carassius auratusgibelio*) - 47 dona, zog'ora baliq (Sazan - *Cyprinus carpio*) - 68 dona, oq amur (*Ctenopharyngodon idella*) - 39 dona, miqdorida baliqlari yorib ko'rish usuli orqali tekshirildi. Farg'ona vodiysining suv havzalaridagi baliqlarda 2 tip, 3 ta sinf, 6 ta turkum, 9 ta oila, 9 ta avlodga mansub 9 tur gelmintlar qayd etildi. Ularning 3 tasi cestodalar (*Cestoda*), 2 tasi trematodalar (*Trematoda*) va 5 tasi nematodalar (*Nematoda*) sinfiga tegishlidir.

Kalit so'zlar: sazan, parazitlar, gelmintlar, cestoda, nematoda, trematoda suv havzalari, Farg'ona vodiysi.

РЫБНЫЕ ГЕЛЬМИНТЫ В РЫБНЫХ ВОДОХОМАХ ФЕРГАНСКОЙ ДОЛИНЫ

Аннотация. Целью нашей исследовательской работы в данной статье является систематическое изучение видового состава гельминтов у некоторых рыб водоемов Ферганской долины и изучение процесса экстенсивного и интенсивного поражения рыб. За время исследований, проведенных в 2018-2019 гг., черного карася (*Schizothorax intermedius*) 42 экз., толстолобика (*Carassius auratusgibelio*) - 47 экз., карпа (*Cyprinus carpio*) - 68 экз., белого амура (*Ctenopharyngodon idella*) - 39 экз., количество рыбы исследовали методом разделки. В водоемах Ферганской долины у рыб зарегистрировано 9 видов гельминтов, относящихся к 2 видам, 3 классам, 6 семействам, 9 семействам и 9 родам. Из них 3 относятся к классу цестод (*Cestoda*), 2 — к трематодам (*Trematoda*) и 5 — к нематодам (*Nematoda*).

Ключевые слова: карп, паразиты, гельминты, цестоды, нематоды, трематодные водоемы, Ферганская долина.

FISH HELMINTHS IN THE FISH WATERS OF THE FERGANA VALLEY

Abstract. The purpose of our research work in this article is a systematic study of the species composition of helminths in some fish of the reservoirs of the Fergana Valley and the study of the process of extensive and intensive damage to fish. During the research conducted in 2018-2019, black carp (*Schizothorax intermedius*) 42 specimens, silver carp (*Carassius auratusgibelio*) - 47 specimens, carp (*Cyprinus carpio*) - 68 specimens, grass carp (*Ctenopharyngodon idella*) - 39 specimens, the number of fish was studied by cutting. 9 species of helminths belonging to 2 species, 3 classes, 6 families, 9 families and 9 genera have been registered in the reservoirs of the Fergana Valley in fish. Of these, 3 belong to the class of cestodes (*Cestoda*), 2 - to trematodes (*Trematoda*) and 5 - to nematodes (*Nematoda*).

Keywords: *carp, parasites, helminths, cestodes, nematodes, trematode reservoirs, Ferghana Valley.*

KIRISH

O'zbekistonning hayvonot dunyosi o'ziga xos, boy va turli-tumandir. Respublikamiz faunasining asosiy o'rinlaridan birini baliqlar tashkil etib, ularning 80 dan ortiq turi (baliqchilik xo'jaliklardan tashqari) suv havzalarida qayd qilingan. Baliqlarning ba'zi turlari (Orol shim balig'i, soxta kurakburunlar, parrak, cho'rtan-marka va boshqalar) noyob bo'lib, faqatgina O'rta Osiyo suv havzalarida uchraydi. Mazkur baliq turlarining ko'pchiligi hisobiga O'zbekiston ixtiofaunasining tarkibi XX asrning ikkinchi yarmida boyitildi. Ularning ba'zi birlari (do'ngpeshona, oq amur, pelyad, sevan foreli va boshqalar) maxsus iqlimlashtirilgan turlar bo'lib, boshqalari esa (buqabaliqlar, amur chebakchasi, Amur ilonboshi va boshqalar) bizning suv havzalarimizga tasodifan iqlimlashib kelgan turlardir (Mirabullayev i dr., 2019). Ba'zi mulliflar Farg'ona vodiysining turli toifa suv xavzalaridagi baliqlarning 11 ta oilaga tegishli 26 turini ko'rsatib o'tganlar (Abdinazarov, Mirabdullayev, 2015).

TADQIQOT MATERIALLARI VA METODOLOGIYASI

Sirdaryoda yashovchi baliq parazitlari haqidagi dastlabki ma'lumotlar XX asrning o'rtalarida ilmiy matbuotda paydo bo'ldi (Agapova, 1966). Bir qator mualliflarning tadqiqot materiallari bo'yicha (Osmanov, 1971; Kurbanova, 2002; Karimov, 2007; Safarova, 2017) Sirdaryoning quyi va o'rta oqimi turli toifa suv havzalarida baliqlar parazitlarining 35 tadan 128 tagacha turlari qayd etilgan. Umumlashtirilgan ma'lumotlar S.O.Osmanovning (1971) ishlarida taqdim etilgan. Faunistik materiallar asosida Sirdaryo suv havzalarida 118 tur parazitlar qayd etilgan bo'lib, ularning 40 tasi sodda hayvonlarga, 52 tasi monogeneyalarga, 11 tasi sestodalarga, 5 tasi nematodalarga, 4 tasi akantotsefalalarga, 1 tasi zuluklarga va 5 tasi qisqichbaqalarga tegishli ekanligi aniqlagan. S.B.Karimov (2007) ma'lumotlariga ko'ra, Farg'ona vodiysi suv havzalarida o'tkazgan tadqiqotlari natijasida, baliqlarda turli xil sistematik guruhlarga mansub 115 tur parazitlar qayd etilib, shulardan 19 tur miksosporidialarga, 2 tur tripanosomalarga, 1 tur koksidiyalarga, 10 tur kipriklilarga, 47 tur monogeneyalarga, 10 tur sestodalarga, 7 tur trematodalarga, 8 tur nematodalarga, 3 tur tikanboshlilarga, 2 tur zuluklarga va 6 tur qisqichbaqasimonlarga taalluqli deb qayd etilgan. Shuni ham ta'kidlash kerakki, ayni muallifning tadqiqotlari asosan Farg'ona vodiysining Shimoliy Tojikistonga tegishli (ya'ni O'zbekistonga bevosita chegaradosh suv havzalari) xududida amalga oshirilgan.

Baliqchilik sohasini rivojlanishga jiddiy to'siq bo'layotgan baliqlarning parazitlar kasalliklarini, shu jumladan, gelmintlar bilan zararlanganlik darajasini o'rganish, tur tarkibini zamonaviy tadqiqot usullari asosida aniqlash hamda epizootik ahamiyatga ega bo'lgan turlarni ko'payib ketishining oldini olish chora tadbirlarini ishlab chiqish bugungi kunning dolzarb talablaridan biridir.

Ushbu maqoladagi tadqiqot ishimizning maqsadi Farg'ona vodiysi suv havzalarida ayrim baliqlardagi gelmintlarning turlar tarkibini sistematik jihatdan o'rganish hamda baliqlarni ekstensiv va intensiv zararlashi jarayonini o'rganishdan iboratdir.

TADQIQOT NATIJALARI

2018-2019 yillarda olib borilgan tadqiqotlar davomida, Sirdaryoning yuqori oqimi, Farg'ona viloyatining Dang'ara va Beshariq tumani baliqchilik xo'jaliklari, shuningdek, viloyatning janubiy suv oqimlari, ya'ni Isfayramsoy, Sux, Shoximardonsoy, Naymansoy

daryolari, Katta Farg‘ona kanali, Janubiy Farg‘ona kanali, Katta Andijon kanali, Shimoliy Bog‘dod (Rishtonobod) kollektorida tarqalgan baliqlardan gelmintologik material namunalari yig‘ildi. Shu jumladan, Qorabaliq (Shir mohi – oddiy marinka) (Schizothorax intermedius) 42 dona, Kumush tovonbaliq (Carassius auratusgibelio) - 47 dona, zog‘ora baliq (Sazan - Cyprinus carpio) - 68 dona, Oq amur (Ctenopharyngodon idella) - 39 dona, miqdorida baliqlari yorib ko‘rish usuli orqali tekshirildi (Bixovskaya-Pavlovskaya, 1985). Turlarni aniqlashda «Opredelitel parazitov presnovodnix rib fauni SSSR» va boshqa mualliflarning monografiyalaridan foydalanildi (Osmanov, 1971; Delyamure i dr., 1985) va boshqalar.

MUHOKAMA

Olib borilgan dastlabki tadqiqotlar va adabiyotda keltirilgan ma‘lumotlar bo‘yicha Farg‘ona vodiysining suv havzalaridagi baliqlarda 2 tip, 3 ta sinf, 6 ta turkum, 9 ta oila, 9 ta avlodga mansub 9 tur gelmintlar qayd etildi. Ularning 3 tasi sestodalar (Cestoda), 2 tasi trematodalar (Trematoda) va 5 tasi nematodalar (Nematoda) sinfiga tegishlidir.

Plathelminthes Schneider, 1873 tipi

Cestoda Rudolphi, 1808 sinfi

Caryophyllida van Beneden in Carus, 1863 turkumi

Caryophyllaeidae Leuckart, 1878 oilasi

KhawiaHsü, 1935 avlodi

1. *Khawia sinensis Hsü, 1935 Sirdaryo va Sariqsuv kolektoring quyilish joyida oq amur balig‘ini ichagidan topib aniqlanib, IE -2.3%, II -1-5 nusxani tashkil etdi.*

Pseudophyllida Carus, 1863 turkumi

Amphicotylidae Ariola, 1899 oilasi

Bathybothrium Lühe, 1902 avlodi

2. *Bathybothrium rectangulum Bloch, 1782 turi Isfayramsoy va Naymansoylaridagi qorabaliq (oddiy marinka) ichagida topilib, IE -3,1%, II 1-11 nusxani tashkil etdi.*

Ligulidae Claus, 1885 oilasi

Ligula Bloch, 1782 avlodi

3. *Ligulaintestinalis* Linnaeus, 1758 larvae Beshariq tumani “O‘rinboy” baliqchilik xo‘jaligida do‘ngpeshona baliqlarning tana bo‘shlig‘idan aniqlanib, IE -23,7 %, II -3-38 nusxani tashkil etdi.

Plathelminthes Schneider, 1873 tipi

Trematoda Rudolphi, 1808 sinfi

Sanguinicolida Odening, 1960 turkumi

Sanguinicolidae Graff, 1907 oilasi

Sanguinicola Plehn, 1905 avlodi

4. *Sanguinicola inermis* Plehn, 1905, Sirdaryo daryosining yuqori oqimi va unga tutash suv xavzalaridagi do‘ngpeshona balig‘ining qon aylanish tizimida topilgan bo‘lib, IE -1,6%, II -1-6 nusxani tashkil etdi.

Orientocreadiidae Skrjabin et Kowal, 1960 oilasi

Orientocreadium Tubangui, 1931 avlodi

5. *Orientocreadium siluri* Bychowsky et Dubinina, 1954, Isfayramsoy, So‘x, Shoximardonsoy, Naymansoylarida qorabaliq (oddiy marinka)larning ichagida aniqlanib, IE -1,1%, II 1-4 nusxani tashkil etdi.

Nemathelminthes Schneider, 1866 tipi

Nematoda Rudolphi, 1808 sinfi

Diectophymida Skrjabin, 1927 turkumi

Diectophymidae Railliet, 1915 oilasi

Diectophyme Collet-Meygret, 1802 avlodi

6. *Diectophymerenale* Goeze, 1782 larvae Farg'ona vodiysining janubidagi Isfayramsoy, Sux, Shoximardonsoy daryolaridagi qora baliq (oddiy marinka)larning ichagida aniqlanib, IE -1,7 %, II -1-11 nusxanini tashkil etdi.

Spirurida Chitwood, 1933 turkumi

Rhabdochonidae Skrjabin, 1946 oilasi

Rhabdochona Railliet, 1916 q

7. *Rhabdochona denudata* Dujardin, 1845 Sirdaryo irmoqlaridan qora baliq (oddiy marinka) va do'ngpeshona baliqlari ichagida aniqlanib, EI -1,2%, II -1-6 nus. ni tashkil etdi.

Ascaridida Skrjabin et Schulz, 1940 turkumi

Anisakidae Skrjabin et Karokhin, 1945 oilasi

Raphidascaaris Railliet et Henry, 1915 avlodi

8. *Raphidascaarisacus* Bloch, 1779 larvae "Abdurasulov Davron fayz", "O'rinbek" baliqchilik xo'jaliklaridagi zog'ora, do'ngpeshona va kumushtovonbalig'ining ichagi va qorin bo'shlig'ida aniqlanib, IE -3,1%, II 1-19 nusxani tashkil etdi.

Echinorhynchidae Cobbold, 1879 oilasi

Acanthocephalus Kaelruther, 1771 avlodi

9. *Acanthocephalus lucii* Müller, 1776 Sirdaryoga qo'yilish kollektorlaridan tutilgan zog'ora balig'ining ichagida aniqlanib, IE - 0,8%, II -1-8 nusxani tashkil etdi.

XULOSA

Sirdaryoning yuqori oqimi va unga tutash suv xavzalari, Farg'ona viloyati Isfayramsoy, Sux, Shoximardonsoy, Naymansoy daryolari, shuningdek, Katta Farg'ona kanali, Janubiy Farg'ona kanali, Katta Andijon kanali, Shimoliy Bog'dod (Rishtonobod) kollektoriva baliqchilik xo'jaliklaridan tutilgan baliqlardan 19 tur gelmintlar qayd etilib, ular quyidagi sistematik guruhlariga: sestodalar bilan zararlaniş darajasi o'rtacha IE -11,8%, II -1-17 nusxada, trematodalar -IE -1,8%, II -1-5 nusxada, nematodalar - IE -1,8%, II -1-10 nusxada va akantotsefallar - IE -1.2%, II -1-6 nusxada zarlanganligi aniqlandi.

Kelajakda ayni yo'nalishdagi tadqiqotlarda, endemik gelmintlarning biologiyasi va polimorf turlarning molekulyar taksonomiyasi hamda epizootik ahamiyatga ega bo'lgan baliq gelmintozlarining oldini olish chora tadbirlariga oid ishlarni amalga oshirish muhimdir.

REFERENCES

1. Kipchakova, Y. (2021). METHODOLOGICAL AND DIDACTIC ASPECTS OF INFORMATION AND INTELLECTUAL CULTURE IN THE EDUCATION OF A DEVELOPED GENERATION. *Экономика и социум*, (6-1), 156-159.
2. Kipchakova, Y. X., & Kodirova, G. A. (2020). INNOVATIVE TECHNOLOGIES IN MODERN EDUCATION. *Теория и практика современной науки*, (5), 29-31.
3. KIPCHAKOVA, Y., ABDUXAMIDOVA, M., & RAXMONALIYEVA, M. THE IMPACT OF INNOVATIVE TECHNOLOGIES IN IMPROVING STUDENT KNOWLEDGE. *СТУДЕНЧЕСКИЙ ВЕСТНИК Учредители: Общество с ограниченной ответственностью "Интернаука"*, 37-38.

4. Қипчақова, Ё., Махмудова, М., & Умарова, З. (2021). МАКТАБГАЧА ЁШДАГИ БОЛАЛАР МЕҲНАТИНИНГ ЎЗИГА ХОС ХУСУСИЯТИ. *Студенческий вестник*, (22-7), 9-10.
5. Қипчақова, Ё., Соибжоновна, Ш., & Абдуқаюмова, С. (2021). МАКТАБГАЧА ТАЪЛИМ ЖАРАЁНИДА СОҒЛОМ ТУРМУШ ТАРЗИНИ ШАКЛЛАНТИРИШНИНГ АҲАМИЯТИ. *Студенческий вестник*, (22-7), 11-12.
6. Ботирова, Н. (2020). Обучающие возможности тестовых технологий. *Профессиональное образование и общество*, (3), 68-71.
7. Ботирова, Н. Д. (2019). РАЗВИТИЮ ПРОДУКТИВНОГО МЫШЛЕНИЯ МЛАДШИХ ШКОЛЬНИКОВ. *Гуманитарный трактат*, (61), 4-6.
8. Ботирова, Н. Д. РАЗВИТИЮ ПРОДУКТИВНОГО МЫШЛЕНИЯ МЛАДШИХ ШКОЛЬНИКОВ DEVELOPMENT OF PRODUCTIVE THINKING OF YOUNGER SCHOOLBOYS. *Журнал выпускается ежемесячно, публикует статьи по гуманитарным наукам. Подробнее на*, 4.
9. Djurabaevna, B. N., & Ibrokhimovna, T. S. (2020). Specific features of teaching mathematics in primary school students. *ACADEMICIA: An International Multidisciplinary Research Journal*, 10(8), 302-307.
10. Alimjanova, M. (2020). PEDAGOGICAL SYSTEM OF FORMATION OF RESPONSIBILITY IN PRIMARY SCHOOL STUDENTS ON THE BASIS OF NATIONAL VALUES. *Theoretical & Applied Science*, (4), 914-917.
11. Alimjanova, M. (2021). ABOUT GENDER STEREOTYPES. *Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL)*, 2(06), 72-76.
12. Alimjonova, M. Y. (2021). The role of the national values in the history of pedagogical education. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(3), 1040-1044.
13. Shavkatovna, S. R. (2021). DEVELOPING CRITICAL THINKING IN PRIMARY SCHOOL STUDENTS. *Conferencea*, 97-102.
14. Vasiljonov, A. (2022). BASIC THEORETICAL PRINCIPLES OF CORPUS LINGUISTICS. *Academicia Globe: Inderscience Research*, 3(02), 173-175
15. Shavkatovna, S. R. (2021). Methodological Support for The Development of Primary School Students' Creative Activities. *Texas Journal of Multidisciplinary Studies*, 2, 121-123.
16. Shavkatovna, S. R. N. (2021). METHODOLOGICAL SUPPORT OF DEVELOPMENT OF CREATIVE ACTIVITY OF PRIMARY SCHOOL STUDENTS. *Conferencea*, 74-76.
17. Maxamadaliyevna, Y. D., Òljayevna, Ò. F., Qizi, T. D. T., Shavkatovna, S. R. N., & Anvarovna, A. O. (2020). Pedagogical Features Of Mental Development Of Preschool Children. *Solid State Technology*, 63(6), 14221-14225.
18. Jabborova, M. (2021). THE IMPORTANCE OF INNOVATIVE TECHNOLOGIES IN THE SOCIAL DEVELOPMENT OF SOCIETY. *Экономика и социум*, (6-1), 129-132.
19. Tillaboyeva, G., & Umarova, N. R. (2021). ALISHER NAVOIY ASARLARIDA BADIY TAXALLUSLARNING QO 'LLANILISHI. *Студенческий вестник*, (13-5), 70-72.
20. Qizi, G. S., & Umarova, N. R. (2021). The use of anthroponyms and pseudonyms in alisher Navoi's gazelles. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(9), 349-3

21. Sodirzoda, M. M. (2021). Ways to cultivate the creative thinking of beginners in the classroom through information and communication technologies. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(5), 955-958.
22. Sodirzoda, M. M. (2021). Techniques of using folk proverbs in the cultivation of oral speech of primary school students. *ACADEMICIA: An International Multidisciplinary Research Journal*, 11(10), 481-484.
23. Sodirzoda, M. M. (2021). TO INCULCATE NATIONAL AND SPIRITUAL VALUES IN PRIMARY SCHOOL STUDENTS THROUGH ETIQUETTE LESSONS. *Conferencea*, 31-32.
24. Турахўжаева, А., & Мухторий, М. (2018). СЕМАНТИЧЕСКИЙ АНАЛИЗ ЛЕКСЕМ" СИСТЕМЫ" В УЗБЕКСКОМ ЯЗЫКЕ. *Актуальные научные исследования в современном мире*, (5-4), 157-159.
25. Юлдашева, Д. М., Асқарова, Д., & Зоҳидова, М. (2021). Ўзбек болалар нутқига доир матнларда лақуна. *Academic research in educational sciences*, 2(2).
26. Джалолова, М., Рахманова, Э. Ю., & Косимова, Х. Н. (2021). ВОСПИТАНИЕ СЕНСОРНОГО ВОСПРИЯТИЯ У ДЕТЕЙ ДОШКОЛЬНОГО ВОЗРАСТА. *Scientific progress*, 1(6).
27. Косимова, Х. Н. (2021). КИТОБХОНЛИК КЎНИКМАСИНИ ШАКИЛЛАНТИРИШДА ОИЛАГА ПЕДАГОГИК ТАВСИЯЛАР БЕРИШ ТИЗИМИ. *Scientific progress*, 1(6).
28. Нажмиддинов, Э. Х., Кучбоев, А. Э., Мухаммадиев, М. А., & Соатов, Б. Б. (2021). Эколого-морфологические характеристики нематод рода *Rhabdochona*-паразитов обыкновенной маринки. Теория и практика борьбы с паразитарными болезнями, (22), 387-393.
29. Юлдашев, Э., & Нажмиддинов, Э. (2013). БРАКОНИДЫ (Hymenoptera, Braconidae) РОДА *ROGAS NEES* ФАУНЫ СРЕДНЕЙ АЗИИ. In Биоразнообразие и рациональное использование природных ресурсов (pp. 134-136).
30. Kuchboev, A. E., Najmidinov, E. K., Mukhamediev, M. A., Karimova, R. R., & Yildiz, K. (2021). Morphological and ecological features of some nematodes of the genus *Rhabdochona* in marinka obtained from Fergana Valley, Uzbekistan. *Journal of Parasitic Diseases*, 45(4), 1084-1089.
31. Vasiljonov, A. (2022). BASIC THEORETICAL PRINCIPLES OF CORPUS LINGUISTICS. *Academia Globe: Inderscience Research*, 3(02), 173-175.
32. Usmanov, N. (2021). The Philosophical Basis For The Formation Of Spiritual Maturity Among Young People. *Oriental Journal of Social Sciences*, 1(1), 33-37.
33. Gulnoza, R., & Lola, K. (2022). OBRAZLAR TALQINIDA LINGVISTIK IMKONIYATLAR. *Central Asian Research Journal for Interdisciplinary Studies (CARJIS)*, 2(Special Issue 3), 91-95.
34. Kalandarovna, Y. L. (2022). IDENTIFICATION AND EDUCATION OF GIFTED CHILDREN. *ASIA PACIFIC JOURNAL OF MARKETING & MANAGEMENT REVIEW ISSN: 2319-2836 Impact Factor: 7.603*, 11(10), 42-47.
35. Dilafuz, A. (2022). МАКТАБГАЧА YOSH DAGI BOLALARDA VA OILADA GENDER XUSUSIYATLARNI SHAKLLANTIRISH OMILLARI. *INNOVATION IN THE MODERN EDUCATION SYSTEM*, 2(18), 183-189.

36. Юлдашева, Д. М., Асқарова, Д., & Зоҳидова, М. (2021). Ўзбек болалар нутқига доир матнларда лақуна. *Academic research in educational sciences*, 2(2), 926-931.
37. Askarova, D. I. (2022). THE ROLE OF FOLK PEDAGOGY IN THE DEVELOPMENT OF CREATIVITY OF STUDENTS OF HIGHER EDUCATIONAL INSTITUTIONS. *Oriental Journal of Social Sciences*, 2(02), 89-96.
38. Rahmonov, U., Ergashev, A., Nazhmetdinova, M., & Usmonova, S. (2021, November). IN THE FORMATION OF THE SOCIO-SPIRITUAL THINKING OF YOUNG PEOPLE IN THE MUSICAL ART OF THE GREAT SCHOLARS OF THE EASTERN RENAISSANCE POSITION HELD. In *Archive of Conferences* (pp. 36-39).
39. Karimovich, U. R., Mamasodikovna, N. M., & Abdullaevich, E. A. (2021). The Role and Importance of Music Clubs in The Leisure of Young People. *Journal of Pedagogical Inventions and Practices*, 2(2), 47-49.
40. Ulugbek, R. (2021, January). AN ANALYSIS OF WORDS WHOSE EMOTIONAL MEANING CHANGES IN MODERN ENGLISH LINGUISTICS. In *Euro-Asia Conferences* (Vol. 1, No. 1, pp. 131-136).
41. Narziev, S., Asqarov, J., & Khokimyatov, A. (2021). Methodology Of Organization Of The Labor Process And Preservation Of Employees' Health. *The American Journal of Engineering and Technology*, 3(04), 79-84.
42. Asqarov, N. I. (2021). Prospects For The Development Of The Investment. *The American Journal of Applied sciences*, 3(01), 162-166.
43. Usmanova, O. S. (2022). National curriculum and new generation mathematics textbook. *Asian Journal of Multidimensional Research*, 11(2), 11-16.
44. Sobirovna, U. O. (2022). The Use of Mnemotechniques in Teaching Younger Schoolchildren. *Spanish Journal of Innovation and Integrity*, 6, 446-450.
45. Dilafruz, Y., Marifatxon, J., Rasuljonovna, E. Z., & Muqaddasxon, M. (2022). МАКТАБГАЧА ТА'ЛИМГА ЯНГИЧА ҲОНДАШУВ. *Central Asian Research Journal for Interdisciplinary Studies (CARJIS)*, 2(Special Issue 3), 121-125.
46. Zhabborova, M. R. K. (2021). Мактабгача таълим соҳаси талабаларида бошқарувчанлик қобилиятларини ривожлантириш. *Молодой ученый*, (17), 394-395.
47. Мирзабоев, Й. А. (2022). ТУР ЎЗГАРИШ ЧИЗИҚЛАРИ УЧТА БЎЛГАН, ГИПЕРБОЛИК ҚИСМЛАРИНИНГ ҲАММАСИ ХАРАКТЕРИСТИК УЧБУРЧАКЛАРДАН ИБОРАТ БЎЛГАН БЕШБУРЧАКЛИ СОҲАДА УЧИНЧИ ТАРТИБЛИ КЎРИНИШДАГИ ПАРАБОЛИК-ГИПЕРБОЛИК ТЕНГЛАМА УЧУН БИТТА ЧЕГАРАВИЙ МАСАЛА ҲАҚИДА. *THEORY AND ANALYTICAL ASPECTS OF RECENT RESEARCH*, 1(5), 363-366.