3rd INTERNATIONAL CONFERENCE:

"CONSERVATION OF EURASIAN BIODIVERSITY: CONTEMPORARY PROBLEMS, SOLUTIONS AND PERSPECTIVES"

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Conference partners: Andijan State University, Uzbekistan, Ege University, Turkey & Baku State University, Azerbaijan

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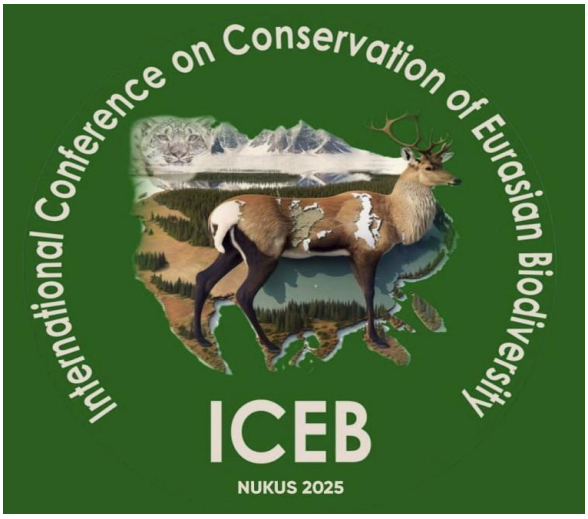

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Foydalanilgan adabiyotlar ro'yxati

Saparniyazov I.A., Sanaev S.T., Isaev S., Rizaev Sh., Shamsiev A., Rakhmatov I. Growing varieties sweet corn main period in Karakalpakstan. E3S Web of Conferences 497**,** 03043 (2024) *ICECAE 2024* https://doi.org/10.1051/e3sconf/202449703043

Санаев С.Т., Сапарниязов И.А. Қорақалпоғистон Республикаси шароитида гидрогель қўлланилиб сабзавот (ширин) маккажўхори етиштириш. «Жанубий Оролбўйи биологик хилма-хиллигини сақлаш, қайта тиклаш ва муҳофаза қилишнинг экологик масалалари» мавзусидаги Халқаро илмий-назарий анжуман Нукус 2018 йил.

Санаев С.Т., Сапарниязов И.А. Особенности применения гидрогеля при выращивании овощной (сахарной) кукурузы в условиях Каракалпакстана в качестве повторных культур.“Инновационные подходы в решении проблем современного общества”.сборник статей IV международной научно-практической конференции 15 мая 2019 г., г.Пенза. С.37.

Санаев С.Т., Сапарниязов И.А., Бектурсынов А.Б. Выращивание овощной (сладкой) кукурузына разных материалах мульчирования. Овощи России 2023;(1):54-59. https://doi.org/10.18619/2072-9146-2023-1-54-59

Санаев С.Т., Сапарниязов И.А.Сабзавот (ширин) маккажўхори етиштиришда гидрогель моддасини қўллашнинг ўзига хос хусусиятлари. O'zbekiston agrar fani xabarnomasi №5 (17/2) 2024

Халимова М.У. Қовун ва тарвуз етиштириш Тасвир-2021.

QORAMUYIN VA MIYONQOL-XATIRChI KANALLARI GIDROBIONTLARI BIOXILMA -XILLIGI VA EKOLOGIYASI

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Abstract: Climate change has a significant impact on the biodiversity of hydrobionts of the Karamuyin and Miyankol-Khatyrchi canals. As a result of our studies, it was found that 19 species and 1 subspecies of hydrobionts belonging to the families Unionidae, Corbiculidae, Lymnaeidae, Physidae, Planorbidae and Astacidae are distributed in the Karamuyin canal, and 15 species and 2 subspecies in the Miyankol-Khatyrchi canal. When studying the distribution of species distributed in

the canals in biotopes, it was found that 4 species are distributed in rocky soils, 9 in sandy soils and 10 in clay. It was observed that the number and density of species in the Karamuyin canal is higher than in the Miyankol-Khatyrchi canal. The reason is that the Karamuyin canal receives water from the upper reaches of the Zarafshan River, which has a low mineralization level of water.

Key words: Karamoyin Canal, species, density, aquatic ecosystems, Unionidae, Corbiculidae.

Kirish. Dunyoda cho‘l va adir mintaqalardagi daryolar gidrologik rejimi yillik va mavsumiy xarakterining doimiy o‘zgarib borayotganligi suv havzalaridagi gidrobiontlar biologik xilma-xilligiga o‘z ta’sirini ko‘rsatmoqda. Suv resurslaridan oqilona foydalanish suv omborlari va baliqchilik ho‘jaliklarining ko‘plab tashkil etilishi gidrobiontlar faunasi tur tarkibi o‘zgarishiga sabab bo‘lmoqda. Qirg‘oqchil hududlar suv havzalari uchun xos bo‘lgan gidrobiontlarning xozirgi holatini o‘rganish va kamyob turlarini muhofazalash choralarini ishlab chiqish muhim masalalardan biri bo‘lib hisoblanadi (Bogan A.E, 2010).

Tabiiy ekotizimlari o‘zgarib borayotgan va iqlim o‘zgarishiga moyil hududlardagi gidrobiontlarni tur tarkibini aniqlash, zamonaviy usullar asosida endem, kamyob turlar populyatsiyalarini baholash, muhofazaga muxtoj turlarni saqlab qolish yuzasidan salmoqli tadqiqotlarni amalga oshirilmoqda. Qoramuyin va Miyonqol-Xatirchi kanallari gidrobiontlari bioxilma - xilligi va ekologiyasini o‘rganish dolzarb muammolardan biri bo‘lib hisoblanadi.

O‘rganish uslublari. Qoramuyin va Miyonqol-Xatirchi kanallari gidrobiontlarini taxlil qilishda Z.I.Izzatullaev (2019, 2024), X.B. Yunusov (2020), X.T. Boymurodov (2024) uslublaridan foydalanildi (Yunusov Kh. va boshq. 2020, Boymurodov Kh. va boshqa. 2021, 2023, 2024). Suv ekotizimlaridan gidrobiontlar namunalarini to‘r yordamida va dragalar bilan yig‘dik. Draganing yuzasi 1 / 44 m^2, kichik g‘alvirining diametri 0,6 mm dan 2,1 mm gacha bo‘ladi. Yig‘ilgan mollyuskalar 70% spirtga fiksatsiyalandi (Bogatov V.V, 2014, Izzatullaev Z.I. va boshq. 2024). Tadqiqotlar davomida biz ulardan foydalandik. Chig‘anoqlarning maxsus idishlarda saqladik. Monografiyalarda keltirilgan uslublar yordamida mollyuskalar chig‘anoqlarini guruhlarga ajratildi.

Tadqiqot natijalari va ularning tahlili. Biz Zarafshon daryosi soxilida barpo etilgan Qoramuyin va Miyonqol-Xatirchi kanallarida tadqiqot ishlari olib bordik.

Qoramuyin kanali – ushbu kanal Zarafshon daryosining o‘ng qismida joylashgan. Turlar soni boshqa kanallarga qaraganda ko‘p bo‘lib sababi kanal Zarafshon daryosidan suv olganligi va suvning doimiy mavjud bo‘lishi o‘z ta’sirini ko‘rsatadi. Kanalning uzunligi o‘rtacha 52,2 km.dan ortiqroq. Hozir kanalning maksimal suv sarfi 55,4-98,2 m^3/sek. o‘rtacha suv sarfi 25,1-50,3 m^3/sek. Qoramuyin kanalida turlar tarqalishi to‘liq tahlil qilinmagan. Tadqiqotlarimiz natijasida kanalda Unionidae, Corbiculidae, Lymnaeidae, Physidae, Planorbidae va Astacidae oilalariga kiruvchi 19 ta tur va 1 kenja tur gidrobiontlar tarqalganligi aniqlandi. Kanalning baqoqlashgan yuqori va o‘rta qismlaridagi N 39.72940994011614, E 67.22001939714663 koordenatli 734 m. balandliklarda N 39.78024887239748, E 67.11791930629072 bo‘lgan 688 m. bandliklari va N 39.99717765911504, E

66.99789047241212 bo‘lgan 632 m. balandliklaridagi joylardan terib o‘rganildi. Kanalning loyli biotoplari 1,3-2,4 m. chuqurliklarida 1 m^2 joylarida ikkipallali mollyuskalarning Uonionidae oilasi Sinanodonta urug‘idan *Sinanodonta gibba* 0,5, *Sinanodonta orbicularis* 0,7, *Sinanodonta puerorum* 0.3 Colletopterum urug‘idan *Colletopterum bactrianum* 0,2, *Colletopterum ponderosum volgense* 0,4 tadan tarqalgan biotoplpri aniqlandi.

Kanalning qumloq biotoplarida Sorbiculidae oilasi Corbicul urug‘idan *Corbicula cor* 0,2, *Corbicula purpurea* 0,3, Corbiculina urug‘idan *Corbiculina tibetensis* 1,0, *Corbiculina ferghanensis* 1,2 tadan tarqalganligi aniqlandi. Suv ekotizimining yuqori va o‘rta oqimida turlar zichligi katta lekin quyi qismida zichlik juda kam bo‘lga sabab suv satxining tez-tez o‘zgarib turishi o‘z ta’sirini ko‘rsatgan bo‘lishi mumkin. Masalan turlar zichligi taxlil qilinganda *Lymnaeidae* oilasi *Lymnaea* urug‘idan *Lymnaea stagnalis* 0,9, *Lymnaea truncatula* 1,2, *Lymnaea thiessea* 1,0, *Lymnaea subangulata* 0,5, *Lymnaea auricularia* 1,0, *Lymnaea bactriana* 0,7, *Physidae* oilasidan *Costatella acuta* 0,7, *Planorbidae* oilasi *Planorbis planorbis* 0,5, *Anisus ladacensis* 0,9, Qisqichbaqalardan Astacidae oilasi *Pontastacus leptodactylus* 1,1 uchrashini ko‘zatdik.

Gidrobiontlar turlarining tarqalishi va ekologik guruhlarining xosil bo‘lishiga suv muhiti va undagi oqimning ta’siri katta. Suv oqimi va yashash muhitining ta’siri natijasida quydagi ekalogik guruhlar hosil bo‘lganligini ko‘rish mumkin. Oqar suvlar loylarida – peloreofil, oqar suvlarda – reofil, kanal o‘simliklar orasida – fitofil guruhlar ko‘pchilikni tashkil etadi.

Kanalda quydagi ekologik guruhlar hosil bo‘lganligini ko‘rish mumkin:

peloreofillarning 7 turi 35 % (*Sinanodonta gibba, S. ruerorum, S. orbicularis, Corbicula cor, C. purpurea, Corbiculina tibetensis, C. ferghanensis*), reofillarning 2 turi 10 % (*Solletopterum bactrianum, Lymnaea thiessea*), pelolimnofillarning 1 turi 5 % (*Colletopterum ponderosum volgense*), fitofillarning 8 turi 40 % (*Lymnaea stagnalis, L. oblonga, L. subangulata, L. bactriana, Costatella acuta, Planorbis planorbis, Anisus ladacensis, Pontastacus leptodactylus*), telmotofillar 1 turi 5 % (*Lymnaea truncatula*) va fetoreofillarning 1 turi 5 % (*Lymnaea auricularia*) borligini aniqladik. Suv ekotizimida peloreofil va fitofi ekologik guruhiga kiruvchi turlar ustunlik qilishi aniqlandi. Sababi kanalda loyli va o‘simliklar ko‘p o‘sgan biotoplarning ko‘pligi bilan izoxdash mumkin.

Miyonqol-Xatirchi kanali - Tadqiqotlar davomida Miyonqol-Xatirchi magistral kanalida 15 tur va 2 kenja tur gidrobiontlar tarqalganligini aniqladik. Kanalning doimiy suv mavjud bo‘lgan koordenatlari N 39.6958283534101, E 67.05230150131455 bo‘lgan balandligi 694 m. va N39.804316119844046, E66.75780055634247 balandligi 594 m. loyli biatoplarida turlar tarqalishi taxlil qilindi. Suv ekotizimida Unionidae oilasi Sinanodonta urug‘idan *Sinanodonta gibba* 0,4, *Sinanodonta orbicularis* 0,3, *Sinanodonta puerorum* 0,6, Colletopterum urug‘idan *Colletopterum cyreum sogdianum* 0.3, *Colletopterum ponderosum volgense* 0,3, Sorbiculidae oilasi Corbicul urug‘idan *Corbicula cor* 0,3, *Corbicula fluminalis* 0,4, Corbiculina urug‘idan esa *Corbiculina tibetensis* 1,1, *Corbiculina ferghanensis* 1,3 tadan tarqalgan. Kanal suv ekotizimlarida Unionidae oilasi

ikkipallali mollyuskalarning zichligi boshqa turlarga qaraganda pas sababi suv satxining o‘zgarib turishi o‘z ta’sirini ko‘rsatgan bo‘lishi mumkin.

Kanalning toshloq va qumloq biotoplarida *Lymnaeidae* oilasi *Lymnaea* urug‘idan *Lymnaea stagnalis, Lymnaea thiessea, Lymnaea auricularia* 1,1 tada uchrasa, *Lymnaea bactriana* 0,6 tadan uchrashini aniqladik. *Planorbidae* oilasi *Planorbis* urug‘idan *Planorbis planorbis* 0,4, *Planorbis tangitarensis* 0,8, *Anisus ladacensis* 0,6, Qisqichbaqalardan *Pontastacus leptodactylus* 1,2 tadan tarqalganligi birinchi bor taxlil qilindi.

Miyonqol-Xatirchi kanali suv ekotizimlarida turlarning ekologik guruhlari taxlil qilinganda peloreofillarning 7 turi 41 % (*Sinanodonta gibba, S. ruerorum, S. orbicularis, Corbicula cor, C. fluminalis, Corbiculina tibetensis, C. ferghanensis*), reofillarning 2 turi 12 % (*Solletopterum cureum sogdianum, Lymnaea thiessea*), pelolimnofillarning 1 turi 6 % (*Colletopterum ponderosum volgense*), fitofillarning 6 turi 35 % (*Lymnaea stagnalis, L. bactriana, Planorbis planorbis, P. tangitarensis, Anisus ladacensis, Pontastacus leptodactylus*) va fetoreofillarning 1 turi 6 % (*Lymnaea auricularia*) tarqalganligi aniqlandi.

Xulosa Tadqiqotlarimiz natijasida Qoramuyin kanalida Unionidae, Corbiculidae, Lymnaeidae, Physidae, Planorbidae va Astacidae oilalariga kiruvchi 19 ta tur va 1 kenja tur gidrobiontlar, Miyonqol-Xatirchi kanalida esa 15 tur va 2 kenja tur gidrobiontlar tarqalganligi aniqlandi. Kanallarda tarqalgan turlarning biotoplarda tarqalishi o‘rganilganda toshloq yerlarda 4 ta, qumloq yerlarda 9 ta va loylarda 10 ta turning tarqalganligi aniqlandi. Qoramo‘yin kanalida turlar soni va zichligi Miyonkol-Xatirchi kanaliga qaraganda ustunlik qilishi ko‘zatildi. Sababi Qoramo‘yin kanali Zarafshon daryosining yuqori qismidan suv olganligi suvning minerallanish darajasi REM pastligi o‘z ta’sirini ko‘rsatgan.

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