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OLY VA O‘RTA MAXSUS TA‘LIM VAZIRLIGI

TERMIZ DAVLAT UNIVERSITETI

**“BIOLOGIYADA ZAMONAVIY TADQIQOTLAR:
MUAMMO VA YECHIMLAR”**

xalqaro ilmiy-amaliy konferensiyasi

**MATERIALLARI
TO‘PLAMI**

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“BIOLOGIYADA ZAMONAVIY TADQIQOTLAR: MUAMMO VA YECHIMLAR”

Mazkur to'plamda Respublikamiz va xorijiy mamlakatlarning taniqli olimlari, mutaxassislar, doktorantlar, magistrlar, iqtidorli talabalar tomonidan biologiyaning hozirgi zamon nazariy va amaliy masalalari bo'yicha keng qamrovda olib borilgan tadqiqot ishlarining hamda fan oldida turgan muammolar, ularning yechimiga qaratilgan tadqiqot natijalari keltirilgan. Bundan tashqari, tabiatdan foydalanish va ekologik xavfsizlikning dolzarb muammolari hamda biologiyani o'qitish borasidagi tadqiqotlar tahlili, muammolari va yechimlariga ham keng o'rin berilgan.

To'plamda keltirilgan ilmiy tadqiqot ishlari natijalaridan biologiya, ekologiya va uni o'qitish metodikasi sohalaridagi mutaxassislar, ilmiy xodimlar, mustaqil izlanuvchilar, doktorantlar, magistrantlar va talabalar, oliy va o'rta maxsus, umumta'lim muassasalarining o'qituvchilari foydalanishlari mumkin.

Tezis va maqolalarda keltirilgan tahliliy xulosa, axborot, raqamli ma'lumotlar va xatoliklar uchun mualliflar mas'uldirlar.

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**MATERIALS ON THE BIOLOGY OF LAUGHING DOVE (STREPTOPELIA
SENEGALENSIS LINNAEUS, 1766) IN BUKHARA REGION**

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Introduction. It is important to study the distribution, biology and ecology of bird species, including *Streptopelia senegalensis*, which are an important component of biodiversity, its involvement in agrobiogeocenoses, rural and urban areas, and to identify conservation measures.

Laughing dove is a sedentary, synanthropic species of pigeon family, distributed almost all over the world, including in the Bukhara region. The reason it is called sedentary is that we have met it all year round in all the ecological environments of the region. This bird can be found in the agrobiogeocenoses of districts, cities, towns and villages of the region. However, the biology of this bird is still poorly studied or the materials collected by researchers are obsolete and insufficient to draw appropriate conclusions (Zarudniy, 1896; Dal, 1936; Abdusalomov, 1964; Ivanov, 1969; Kashkarov, 1974; Bakayev, 1994; Kholboyev, 2000). With this in mind, in this article, we present our observations based on the observations made in laughing dove bioecology in 2006-2018.

The methods of G. A. Novikov (1953), A. V. Mikheyev (1984), A. S. Malchevsky (1981) were used in the work. 48 nests of laughing dove were found, 32 eggs, 20 offspring were studied. A number of other observations were also made. Study of the biology and economic significance of laughing doves in the agrobiogeocenoses of Bukhara region. To make recommendations to determine the relationship between humans and laughing doves, their importance, ways of involvement, protection.

Main part. In Bukhara region, laughing doves live side by side with people and are not afraid of them due to the positive attitude of people. That's why it's hard to find a home where this bird hasn't built a nest. This bird is noticeable in rock dove and collared dove, and much smaller than turtle dove. The character is more complex and the boundaries of the area are changing, which can be seen when the nesting places are occupied by collared doves, when they choose closed places as nesting places, and when they change their sleeping places. Not only is the small size of the body different from other pigeons, especially the collared dove, but also the absence of a noticeable semicircular black band and bright patterns on the neck and outer surface of the wing. Accordingly, it can be recognized quickly even from a great distance.

Results and Discussions. During the year we saw this bird in the villages and towns of Bukhara region, in the trees along the roads, in the agrocenoses. The fertility rate (number) of laughing dove varies considerably in urban, rural, agrobiogeocenoses.

The song of this bird has 4-5 syllables-"kuk-ku-ku-kukuuu" and can be heard in almost all months of the year. Only laughing doves are more abundant from March to August, and from September to February their sound is less audible. And in the harsh winter of 2008, the laughter of the doves changed dramatically. During the winter months, they stopped singing. We recorded its first song in the first decade of March. Laughing doves before nesting also form pairs like other agrocenosis birds. During this time, they chase each other, sometimes touching their beaks to each other, making a croaking noise like "kuk-ku-kuuu", flapping their wings and clapping their hands. Demonstrates a skillful ability to dive quickly to the ground. We found and studied 48 nests in different conditions. Our observations show that in the Bukhara region, laughing doves nests are built mainly on trees, partly on various buildings and objects built by humans. Species such as *Streptopelia decaocto* and *Acridotheres tristis* compete with *Streptopelia senegalensis* in the selection of nesting sites. Due to natural conditions, *Streptopelia senegalensis* sometimes win and sometimes lose in such interspecific competition. Occasionally, *Streptopelia senegalensis* reuse their nests, which have been used for years or years. Both sexes *Streptopelia senegalensis* are involved in nest building. The construction period sometimes takes three to ten days, on average four to six days, depending on the time of spring, weather, including temperature. *Streptopelia senegalensis* nests mainly from various parts of the surrounding vegetation within a radius of 100 meters, and rarely from thin, colored wires (in 5 nests). The nest is characterized by its flatness, porosity, lack of nesting materials, and the use of thin colored wires, which are placed close to people. Plate-shaped. Sometimes you can see the eggs in the nest from below. When placing bird nests in trees, the always prefers the branched areas of the stems, or the side branches. *Streptopelia senegalensis* uses vegetative and generative parts of various plants as well as very small amounts of anthropogenic material to build the nest. The raw material and size of the *Streptopelia senegalensis* nest vary depending on environmental conditions and the season, the nesting period. It is known that there are both local and individual variables in nest sizes. When the nest is finished, it lays white eggs. Eggs are laid once in one case and once a day in the other. The total number of eggs in the nest is two. The morfometry of *Streptopelia senegalensis* eggs is as follows: egg (n=32) length 26,8 (25,3-29,4) mm., Width 19,6 (18,4-22,1) mm., Weight 7,82 (5,67-9,6) g. Although the *Streptopelia senegalensis* family is involved in egg laying and heating, the activity of the female individual in the family is noticeable. Observation of eggs, time of measurement Mother *Streptopelia senegalensis* swells, the feathers on the tail swell like a fan, showing the size of the trunk, flapping its wings, flapping its wings like

butterfly wings on the back of the trunk, slowly changing position when very close, trying to dive, uncomfortable sound resistance. The male protects the mate within a radius of 50 meters from the hive and connects it to the surrounding situation. When the sun goes down, it comes close to the nest. During the pressing of eggs, the female *Streptopelia senegalensis* allows a person to come close to her, even to touch her and take a picture of her. This indicates the strength of the care of the offspring of *Streptopelia senegalensis*. The process of pressing eggs takes 13-14 days. From 9 to 11 days of this period, cracks appear in the egg shells. This means that they are trying to get the chicks out of the eggs. The process of pressing eggs, the weight of the eggs decreases. From the egg on the day of hatching, the new generation weighs 5.9 g. The weight before leaving the hive will be 108.6 g. So it's growing fast. Their initial weight gain was 18.41 times. Body weight 18.41g per day. increases from. The appearance, appearance, and color of the chicks change. At first, the tip of the nose and nails are white. On the surface of the body there are yellow and bright yellow embryonic tufts, and in some places: around the eyes, ears, beak, paws, lower neck, along the abdomen. The chicks are blind and their ears are closed. By 4 to 7 days after hatching, dark patches appear around the eyes and ears. Later, in 4-6 days, the ear canals and eyes open. The chicks begin to respond to external influences, i.e., squealing, littering, trembling, throwing themselves backwards, squealing with their beaks, trying to fly and dive, squeezing their paws, fast trying to avoid walking, breathing frequently, grabbing the nests in the hive, moving the head, paws, beak. Now the tips of the feathers on the wings and the tail feathers crack and swell, forming tufts reminiscent of a brush. The nose and fingernails turn brown and thicken. The chicks spread their wings slowly, keep their heads upright, and breathe often. By 7 to 8 days of age, white feathers appear on both ends of the chick's tail feathers. The wings have been shown solely to give a sense of proportion. Because the contour feathers are well developed along the surface of the body, the body is well covered with feathers, and at 10-12 days they are still unable to fly. But it will be more active. Later, when the chicks are 14-15 days old, they become like their parents, trying to fly out of the hive. However, they will be in the shelter of their parents for another 3-4 days. Then they leave the hive.

Thus, in the Bukhara region, the egg nests of *Streptopelia senegalensis* can be found from the second decade of March to November. Depending on the weather, they are sometimes even in the fall or even in early spring exhibit reproductive movements.

Conclusion. *Streptopelia senegalensis* are mainly grain-eating birds. However, their food spectrum and location may change during the seasons. For example, spring, summer wheat, corn, seeds of foreign plants, partly insects, in autumn and winter they are food scraps, virgin spruce seeds, cotton, wheat, corn, beans, mung beans, peas, millet, rice, sunflower, rye, grapes, apples, apricots, quinces, peanuts planted fields, markets, cemeteries, barns, crows night on the spot vomit tickles, settlements, landfills, from nurseries food found and ate. It sometimes swallows pieces of stone, glass, and iron to improve the process of consuming solid foods. In nutrition *Columba livia*, *Streptopelia*

decaocto, *Passer montanus*, *Acridotheres tristis*, *Sturnus vulgaris*, *Parus bokharensis*, *Corvus monedula*, *Corvus cornix*, *Pica pica*, domestic birds, livestock and, in rare cases, *Larus ridibundus*, *Burhinus opticonemus* was found to be around. *Streptopelia senegalensis* feeds on grains and grasses of cultivated plants, encounters around food stalls in markets, on benches in parks, in homes, and sometimes causes unsanitary problems. Carrying ectoparasites in the body causes them to spread. Shares poultry and livestock feed. The waste is fed with food waste and also serves a sanitary function. It is important as a trophic level in the food chain. During the feeding of the new generation, it feeds on "pests" and benefits agriculture. Manure is rich in phosphorus, which mixes with the soil and affects fertility. It uses the body parts of weeds to build nests to limit their spread. In recent times, unplanned shaping of trees, cutting them down, has been affected by the number of *Streptopelia senegalensis* by children, stray cats and *Pica pica*. The appearance and flowering of *Streptopelia senegalensis* is unique and plays a role in agrobiogeocenosis. Therefore, it is advisable to protect it, to create feeding grounds for them in adverse weather conditions, to feed them. With the above characteristics, it plays a positive role in human ecology at various stations.

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**ФАРҒОНА ВОДИЙСИДА МАНЗАРАЛИ ДАРАХТЛАРИДАГИ
КОКЦИДЛАРНИНГ (*ERIOCOCCUS SALICICOLA* (BORCHS)) БАЪЗИ
БИОЛОГИК ХУСУСИЯТЛАРИ**

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**НЕКОТОРЫЕ БИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ КОКЦИД
(*ERIOCOCCUS SALICICOLA* (BORCHS)) НА ДЕКОРАТИВНЫХ
ДЕРЕВЬЯХ ФЕРГАНСКОЙ ДОЛИНЫ**

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**SOME BIOLOGICAL FEATURES OF COCCID (*ERIOCOCCUS SALICICOLA*
(BORCHS)) ON DECORATIVE TREES OF THE FERGANA VALLEY**

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Республикамизда экологик вазиятни яхшилашда шаҳар, туман, кишлоқларимизни кўкаламзорлаштириш мевали ва манзарали ўсимликларни кўпайтириш ишларига катта эътибор берилмоқда. Хусусан, шаҳар, кишлоқларимиздаги йўл четларига экилган терак ва тол дараклари бу жойларни тобора гўзалашувига сабаб бўлмоқда. Терак ва толлар атроф муҳитни экологик ҳолатини яхшилашда, хавони кислород билан бойитиш, чангаларни ютиш каби хусусиятлари билан бир қаторда ёзнинг ниссон кунларида улар остидаги соя салқин жойлар кишиларни мириқиб дам олиш масканлари саналади. Ундан ташқари, юртимизда толнинг ёш новдаларидан , сават, саватчалар тўқилса, танзаси, йирик шокларидан қурилиш материали, халқ хунармандачилигида толдан бешиклар фойдаланилади .

Адабиётларда Ўрта Осиё жумладан, водийнинг манзарали ўсимликларида кокцидларни тарқатиши, уларнинг баъзи биологик хусусиятларини А.Д. Архангелская (1) 1920-1935 йилларда ўрганиб, олинган натижалар асосида 1937 йили ўзининг “Кокциды Средней Азии” номли монографиясини эълон қилди. Монграфияда Ўрта Осиёнинг турли жойларидаги мевали, манзарали ва иссохона ўсимликларида 120 тур кокцидлар тарқалганлигини, уларнинг баъзиларини биологик хусусиятларини кўрсатган. Тожикистондаги Хисор тоғидаги ўсимликларда, жумладан тол ва теракларда тарқалган кокцидлар, уларнинг баъзи биологик хусусиятлари Б. Бозоров (2) томонидан ўрганилган.

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**“BIOLOGIYADA ZAMONAVIY TADQIQOTLAR:
MUAMMO VA YECHIMLAR”**

xalqaro ilmiy-amaliy konferensiyasi

**MATERIALLARI
TO‘PLAMI
I QISM**

Muharrir: A. Bekmurodov
Texnik muharrir: Sh. Raimov
Musahhih: T. Rajabov
Dizayner-sahifalovchi: B. Toshbadalov

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Manzil: Termiz shahri, “Barkamol avlod” ko‘chasi, 43-uy.