Maximum head width (HW)	41.6	48	44.85
Snout length (SNL)	12	16.6	14,37
Eye Diameter (ED)	25	36.3	29.43
Interocular distance (IOW)	41.3	47.6	45.03
Postorbital length (POL)	50	63.3	55.65
In percent of standard length			
Standard length mm	102	139	116.9
Head length	15.7	19.1	17.6
Body maximum height (BM)	12.2	15.4	13.6
Body width maximum (BWM)	9.6	14.1	11.8
Predorsal length (PRD)	40.8	46	43.7
Postdorsal length (PSD)	26.6	33.8	30.1
Pre-pelvic length (PPL)	39.8	47.2	44
Preanal length (PRA)	57.1	62.7	59.2
Dorsal fin length	14	17.2	15.3
Dorsal fin base length	7.8	10	8.7
Anal fin length	8.6	12.5	11.6
Pectoral fin length	13.2	15.2	14.2
Pelvic fin length	11.2	13.7	12.6
Caudal-fin length	15.1	17.6	15.9
Pectoral-pelvic distance	25.9	31.1	27.8
Pelvic-anal distance	14.9	17.1	15.8

Conclusion. The morphology, morphometric dimensions of the body structure and some biological features of the spotted sloth fish (Triplophysa strauchii) caught in Isfayramsoy, which flows through the Fergana Valley, were studied.

Literature

1 Mirabdullaev I.M., Mirzaev U.T. Kuzmetov A.R., Kimsanov Z.O. Key to fish of Uzbekistan and neighboring regions. Tashkent: Sanostandart Publishing House, 2011 – 108 p.
2 Froese, Rainer and Pauley, Daniel, eds. (2019). Types of schizothorax in FishBase. May 2019 version.
3 Yang, J.; J. I. Young; and X. Y. Chen (2012). Reexamining the molecular phylogeny and biogeography of the genus Schizothorax (Teleostei: Cyprinidae) through enhanced sampling focusing on species from the Yunnan-Guizhou Plateau, China. Journal of Zoological Systematics and Evolutionary Studies 50 (3).

ANALYZES ON THE DISTRIBUTION OF *PHLOMIS REGELII* POPOV (LAMIACEAE

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Introduction. The genus *Phlomis* L. is one of the largest genera of the Lamiaceae family. The genus *Phlomis* has a wide distribution from East China through Eurasia and the Mediterranean to Portugal and Morocco. C.Moench recognizes many morphological characters of the species belonging to the genus *Phlomis* and considers that there are enough morphological differences to

divide them into the genus *Phlomis* L. and *Phlomoides* Moench (C. Moench, 1794). Pericarp structure and phylogeny of the *Phlomis* group (Ryding et al., 2008), Phylogeny and biogeography of the genus *Phlomis* (Mathiesen et al., 2011), Phylogeny of the tribe *Phlomideae* (*Lamioideae*: Lamiaceae)) with special focus on *Eremostachys* and *Phlomoides*: New insights from nuclear and chloroplast sequences (Salmaki et al., 2012), despite the fact that both genera are morphologically understudied taxa. Therefore, it requires new views on conducting field research and molecular analysis on the taxonomy, geography, and morphology of both species (Gulomov, 2022).

The genus *Phlomis* has more than 100 species according to its distribution area (Albaladejo, 2005). There are 93 species in the Plants of the World Online international database (POWO, 2024), 17 species in Conspectus florae asiae mediae (Khassanov, 2015), and 12 species in the flora of Uzbekistan (Gulomov report).

The purpose of this article is to clarify the distribution geography of the species *Phlomis regelii* Popov, typical for the western Tien-Shan.

Material and methods. Herbarium specimens of the species are in the National Herbarium of Uzbekistan (TASH) of the Institute of Botany of the Academy of Sciences of Uzbekistan, the herbarium of the Institute of Biology of the Kyrgyz Academy of Sciences (FRU) and the virtual herbarium fund (MW; https://www.plant.depo.msu.ru) about 45 herbarium specimens stored in the Global Biodiversity Information Facility (GBIF; https://www.gbif.org) were used. In addition, the Plantarium database (https://www.plantarium.ru/page/view/ item/27757.html) was also used. The coordinates of the locations in the samples were obtained using *Google Earth* 7.1v (https://www.Google.com/earth/). The nomenclature and scientific names of the taxa were given according to the international catalog of Plants of the World Online (POWO; https://www.plantsoftheworldonline.org), International Plant Name Index (IPNI; https://www.ipni.org/). The distribution map of the species was prepared based on ArcGIS (version 10.6.1), Photoshop CS6x64 software.

Results. As a result of analyzes related to the distribution of the species *Phlomis regelii*, it was found that this species is not found in the flora of Tajikistan (Arkadiusz Nowak & Marcin Nobes, 2020).

This species is not mentioned in the scientific sources dedicated to the flora of Kyrgyzstan (Lazkov, 2011), but by Gorbunov (Kyrgyzstan, Djalal-Abadskaya obl., Chatkalsky district; Chatkalsky Mts., reka Vrabat-Say, 1920 m., Gornaya Step. 10.07.2022; N41.545759, E70.709245) was found to be dialed (https://www.plantarium.ru/page/view/item/ 27757.html). In addition, it was collected by A. Sennikov and G. Lazkov from the Talas region (Talas Region. Kara-Buura District. Karacha-Too Mts. Alt. 945 m.) is being stored.

This species is recorded in the flora of Kazakhstan, and it is reported that it is distributed mainly in the highlands and formations around Shymkent and in the Karatov ridge (Flora Kazakhctana, 1964).

It was determined based on herbarium data that it is distributed in the territory of Uzbekistan in the regions of Chatkal, Kurama, Ugam and Karjantau. "Syntype" of this species is stored in the National Herbarium of Uzbekistan (TASH) (Fig. 1). Lectotype: (Lazkov, 2016) “Inter Orsk et Tashkent, V 1870, O.Fedczenko” (LE!). Based on the available data, a distribution map of the species in the Western Tien-Shan region was created (Fig. 2).

Figure 1. Syntype of the species *Phlomis regelii*, kept in the National Herbarium of Uzbekistan (TASH).

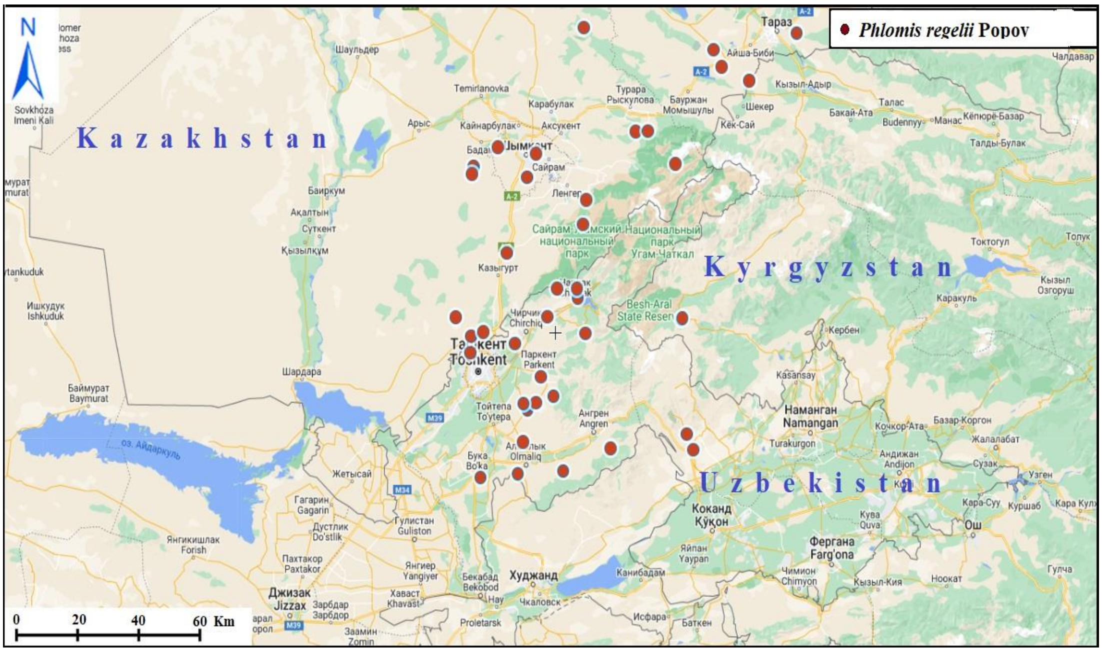

Figure 2. Distribution map of the species *Phlomis regelii* in Western Tien Shan.

Phlomis regeli in the international database Plants of the World Online (POWO; https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:454036-1) only the territory of Uzbekistan was found to be recorded as a sish area (Fig. 3).

Based on the above-mentioned and presented data, it can be noted that the species is also found in the flora of Kyrgyzstan and Kazakhstan, and these regions should also be listed as growing areas in the international database Plants of the World Online.

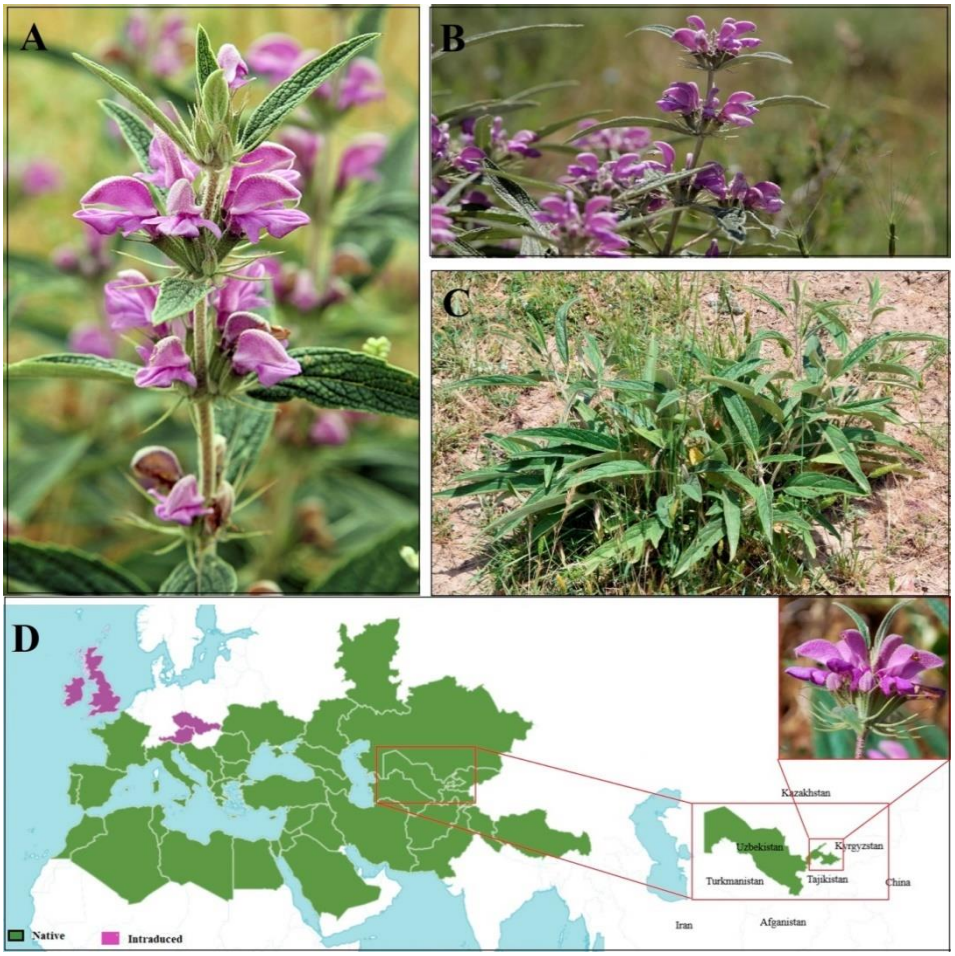

Figure 3. *Phlomis regelii* Popov A) Flower structure (by photo A. Gaziyev); C) Structure of leaves (by photo T.Tillayev); D) Plants of the World Online (POWO: (https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:21116-1).

Today, the effect of anthropogenic factors on the population of *Phlomis regelii* plant has not been assessed, but it is used by local residents for the treatment of inflammation, increase of blood pressure and heart contraction amplitude, hypertonic and cardiotonic properties. In addition, a decoction made from the underground part is used for diarrhea and purulent wounds (Khudoyberdiev, 1995). These data indicate the need to carry out targeted field research in the areas listed on the map to assess the population of the species.

Conclusion. As a result of the conducted research and analysis, a distribution map of *Phlomis regelii* Popov in the Western Tien Shan (Uzbekistan, Kyrgyzstan and Kazakhstan) was created. According to the obtained results, it was proved that the species can be found not only in the territory of Uzbekistan, but also in the territory of Kyrgyzstan and Kazakhstan.

We suggest that the regions of **Kyrgyzstan and Kazakhstan** should be recorded and displayed on the map in the international database of Plants of the world online (POWO) as areas of growth of the species.

Acknowledgments

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List of references

1. Ryding, O**.** 2008. Pericarp structure and phylogeny of the *Phlomis* group (Lamiaceae subfam. Lamioideae). *Bot. Jahrb. Syst.* 127: 299–316.
2. Mathiesen, C., Scheen, A.-C. & Lindqvist, C**.** 2011. Phylogeny and biogeography of the lamioid genus *Phlomis* (Lamiaceae). *Kew Bull*. 66: 1–17.
3. Salmaki Y., Zarre S., Ryding O., Lindqvist C., Schneunert A., Brauchler C. & Heubl G. Phylogeny of the tribe *Phlomideae* (*Lamioideae: Lamiaceae*) with special focus on *Eremostachys* and *Phlomoides*: New insights from nuclear and chloroplast sequences // Taxon, 2012. 61 (1): – P. 161-179.
4. Gulomov R.K. The genus Phlomoides Moench distributed in the Fergana Valley (taxonomy, geography, ecology and conservation): autoref. diss. PhD. -Tashkent: 2022. - p. 43.
5. Plants of the world online (POWO). Retrieved. January 10, 2024, URL: www.plantsoftheworldonline.org
6. The Global Biodiversity Information Facility (GBIF). Retrieved. January 10, 2024, – URL: www.gbif.org
7. International Plant Names Index. Retrieved. January 10, 2024, URL: https://www.ipni.org.
8. Arkadiusz Nowak & Marcin Nobes. Illustrated Flora of Tajikistan and adjacent areas. Polish Academy of Sciences. Opolgraf S.A., 2020. – 475-478 p.

OROL FOJIASI: MUAMMO VA YECHIMLAR

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Qachonlardir Orol dengizi haqiqatdan ham ulkan va sersuv bo'lgan. Bundan atiga 60-70-yilcha avval, XX asrning 50- yillarida Qozog'iston va O'zbekiston hududlarida joylashgan mazkur suv xavzasinining hajmi 68 ming kvadrat kilometrni tashkil etgan. Ulkan suv havzasining bo'yi 428 km eni esa 283 km eng chuqur joyi 68 metr bo'lgan. Afsuski, XXI asrning boshlariga kelib esa vaziyat tamomila o'zgaradi. Orolning maydoni yildan –yilga tobora qisqara borib 14 ming kvadrat kilometrga tushib qoldi. Uning eng chuqur joylari 30 metrni oxirgi 40-45 yil davomida Orol dengizi sathi 22 metrga pasayib ketdi, akvatoriya maydoni 4 martadan ziyodga kamaydi, suv hajmi 10 barobargacha (1064kub km dan 70 kub km) kamaydi, suv tarkibidagi tuz miqdori 112g/l gacha, Orolning sharqiy qismida esa 280g/m gacha deyarli "o'lik''dengizga aylandi. Qurub qolgan Tubi maydoni 4,2 mln gektarni tashkil etib tutash hududlarga chang, qum-tuzli aerozo'llarni tarqatish manbaiga aylandi. Bu yerda har yili atmosfera havosiga 80 dan 100 mln tonnagacha chang ko'tariladi. Bu ko'rsatkichlar faqatgina O'zbekistoni emas butun dunyoni zararlayabdi bu global muonmoga aylanmoqda. Shu bilan bir vaqtda Amudaryo va Sirdaryoning deltalarcha yerlarida tanazzulga uchrashi va cho'llanish sur'atlari o'sib bormoqda.

Orol va Orolbo'yi muomosini yechishdagi uchta asosiy yo'nalishlar ya'ni, birinchidan Ichimlik suvini quvurlar orqali aholiga yetkazish bilan hududdagi sanitarepidemalogik axvolini yaxshilashga qaratildi Jumladan Orol bo'yi axolisida juda ham ko'p kasallik bilan kasalyotganini takidlash lozim bular qandli diabet yuqori qon bosimi nafas yo'llari kasalliklari yurak qon tomir kasalliklari va teri tanozil kasalligi va yod yetishmovchiligi sababli buqoq kasalliklari juda kop uchrayotgani achinarli. Sog'liqni Saqlash va Sanitariya xizmatini yuqoriga ko'tarish zarur! ikkinchidan, dengizni qurigan janubiy qirg'oqlarida suniy damba qurib, delta ekosistemasini doimiy suvlashtirish yo'li bilan "Yashil Kamar" hosil qilish: uchinchidan, dengizni o'zini saqlash. Uni saqlash uchun unga sistematik ravishda ko'p suv yuborib turish kerakligi va bundan tashqari Orolni qurugan tubida saksovulzorlarni keng ko'lamda barpo etish lozim natijada qum ko'chishini, chang ko'tarilishini oldini olinishi mutaxasislar tamonidan takidlangan. Muxtaram Prizdentimiz Sh.Mirziyayev BMT assambeliyasida 2017-yil 72- sesiyasida nutq so'zlagan jumladan Orol fojiyasi Orol da bo'layotgan salbiy o'zgarishlar ekolosiyaga bo'layotgan ta'sirlarni takidlab o'tgan. Quvonarlisi bu islohatlardan Orol sathi 48 smga ko'tarildi.