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№ _____

«18» December 2018

Invitation Letter No.1

Dear colleagues!

On behalf of M.I. Vavilov Society of Geneticists and Breeders of Ukraine (VSGBU) we are pleased to invite you to the associated **VII Congress of All-Ukrainian Association of Plant Biologists and XIV International Scientific Conference «Factors in Experimental Evolution of Organisms»**, dedicated to the 140th birthday anniversary of V.Ya. Yuriev, an academician, the famous geneticists and breeder. The congress and conference will take place on **September 15–20 2019** in the city of Kyiv (Ukraine). The co-organizers of these events are VSGBU, the Institute of Food Biotechnology and Genomics of NAS of Ukraine and the Institute of Molecular Biology and Genetics of NAS of Ukraine.

The scientific work of the Conference will be organized in the **following areas:**

- 1. Genome Evolution in Nature and in Experiment**
- 2. General and Population Genetics**
- 3. Molecular Genetics and Plant Genomics**
- 4. Applied Genetics and Breeding**
- 5. Human Genetics and Medical Genetics**
- 6. Analysis and Evaluation of Genetic Resources**
- 7. Molecular and Cell Biotechnologies**
- 8. Ecological Genetics**
- 9. Bioinformatics and Protein Engineering**
- 10. History of Biology, Teaching of Genetics, Breeding and Evolutionary Theory**

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Working languages: Ukrainian, English, Russian.

All accepted materials will be published as a collection of academic papers «Factors in experimental evolution of organisms» (ISSN 2415-3826 (Online), ISSN 2219-3782 (Print)) prior to the beginning of the conference.

This periodical is included into the List of specialized scientific periodicals of Ukraine in the field of biology (The Order of the Ministry of education and sciences of Ukraine of October 10, 2017 N1413) as well as indexed in the Index Copernicus database.

All materials presented to the conference as academic papers will be published in the periodical in original language (Ukrainian, English or Russian) only after prepayment. The publication fee, which is equivalent to **25 Euros for VSGBU members**, and **40 Euros for other participants**, must be paid before **March 1, 2019** into account of VSGBU: Kyiv, AT Raiffeisen Bank Aval MFO 380805, account 26001247064, EDRPOU (GCEO) 21 676 925 with an indication of **only the first author's surname**. Since society does not have a foreign currency account, foreign participants can transfer money to the treasurer of the Society (03680, Kyiv, Acad. Zabolotnogo str., 150, Institute of Molecular Biology and Genetics NAS of Ukraine for *Poronnik Oksana Oleksandrivna* on demand).

Guidelines for manuscript preparation

1. Manuscripts presented for publication should be of 5–7 A4 size (297 x 210 mm) pages in length including tables, illustrations and abstract. Set page margins to 30 mm left, 20 mm others.

2. Font – Times New Roman, font size – 12 pt; single spaced; text justified, paragraph indent – 10 mm.

3. The text of the manuscript should begin with author(s) name (surname, initials), affiliation (institution), country, full address and e-mail address (12 pt, italics) – (see the example *below*).

4. After the affiliation(s) address, write e-mail and phone number of the corresponding author, 10 pt, *italics*. The corresponding author in the list of authors should be marked by a superscript symbol (✉) – (see the example *below*).

5. **Title** of the article should be short (not more than 120 symbols, including the spaces), accurately reflecting the article content.

6. **Manuscript** should be organized in the following order: abstract (without heading), introduction (without heading), materials and methods, results and discussions, conclusions, references.

7. **Abstract** has to include the following sections: “Aims”, “Methods”, “Results”, and “Conclusions” (see the example *below*). It should be at least 1000 and not exceed 1500 symbols with spaces and punctuation marks, including the article title and *key words* or *phrases* (not more than five).

8. **Abbreviations** should be defined at first mention and used consistently thereafter. For example, Carpathian biosphere reserve (CBR).

9. **Illustrations** (figures, photos, graphs etc.) must be embedded in text and also provided as separate **jpg** format files at 200–400 dpi at approximately the final size (Grayscale mode). Lettering must be in 12pt Times New Roman, the same font must be used throughout all figures in the paper. Scale the figures to fit in the column width. Figure description must not be included in the image. The figures must be up to 80 mm (one column) or 180 mm wide (two columns) and not higher than 234 mm.

10. **Notes for tables** must be provided below the table, in 10 pt. Times New Roman font. For example,

Note. M – molecular mass marker.

Notes: * callus-derived regenerants (primer A11), M – molecular mass marker.

11. **Information about financial support for the research and acknowledgements** should be included after the conclusions, in 10 pt. Times New Roman *italic* font.

12. **References.** Citations in the text must be in brackets. *For instance*, [1]. The list of references must be prepared in the following format and in English, and **listed in the order of their appearance in the manuscript**. The list of used references is made according to State Standard of Ukraine 8302:2015 and to the Ministry of Science and Education of Ukraine decree № 40 of 12.01.2017. For references in Ukrainian or Russian the last names of the authors and the periodical title must be indicated as they appeared in the English version of the abstract or the contents of the periodical. In the case when there are no available English data about the publication, the names of the authors and the periodical must be transliterated into Latin alphabet according to the US Congress Library Standard, and the title of the paper – translated into English. One may use the following transliteration Internet-service: <http://utgis.org.ua/translit>. The references in languages that use the Cyrillic alphabet must be presented as it follows: the reference in the Latin alphabet; DOT; the indication of the language of the original work in square brackets (for example [in Ukrainian]); SLASH; the reference in the original language (see the example *below*). If available, DOI must be provided at the end of reference.

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- Article layout with figures and tables in **.pdf**. The file name should consist of the first author's last name in Latin letters and the number of the section. For example, *Bublyk_1.pdf* (here, the first author is Bublyk, section 1).
- Images as separate files in color (for online-version) and grayscale (for printed version) in **.jpg**. The file name should consist of the first author's last name and image number. For example, *Bublyk_fig1.jpg* (first author Bublyk, figure 1).
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The **subject** of the e-mail message must include the last name of the first author and the section number (for example, *Bublyk_1*).

Example of an article

IVANOV O.M.¹, SAFAROV I.O.^{1,2}, NIKOLAIEV I.Yu.² ✉

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[1 line]

TITLE OF THE ARTICLE (in BOLD CAPITALS)

[1 line]

Abstract (in the language of the paper, without heading)

Introduction (without heading)

Materials and methods

Results and discussion

Conclusions

Information about financial support, acknowledgements (if any, without heading).

[1 line]

References

[1 line]

Example of illustration

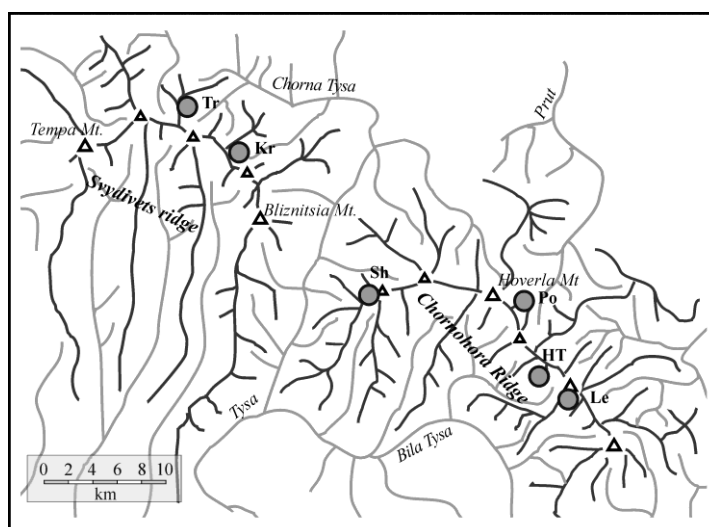


Fig. 1. Map of sampled populations of *G.lutea* in the Ukrainian Carpathians (represented by grayed circles). Kr – polonyna (mountain grassland) Krachuneska; Tr – the ridge slope between Troyaska and Tataruka Mountains; Sh – Sheshul and Pavlyk Mts.; Po – Pozhizhevska Mt.; HT – Hutyn Tomnatek Mt.; Le – polonyna Lemska.

Example of table

Table 1. Primers with the highest values of discriminating power (D_L) selected for the use in population genetic studies of *G. lutea*

	Primer	Rp*	D_L *	ND ₃₀	Nt**	ND ₈₆ estimated	ND ₈₆ experimental
1	UBC#807	11.9	0.967	0	32	0	4
2	UBC#811	12.3	0.964	1	38	8.4	3
3	A18	7.7	0.956	5	21	42.0	52
4	UBC#840	7.2	0.953	5	23	50.4	21
5	A07	5.4	0.953	6	26	50.4	24
6	UBC#889	8.7	0.953	7	26	50.4	20
7	UBC#835	4.7	0.951	7	25	58.8	16
8	ERF-F	9.1	0.949	8	23	67.2	56
9	MYB	7.7	0.949	8	22	67.2	106
10	1962	6.1	0.949	8	17	67.2	58
11	B01	5.5	0.944	10	20	84.0	34
12	A19	7.3	0.942	11	18	70.2	28

Notes: * – value calculated for the sample of plants of two populations (n = 30); ** – value calculated for the sample of plants of six populations (n = 86).

Example of abstract

IVANOV O.M.¹, SAFAROV I.O.^{1,2}, NIKOLAIEV I.Yu.²

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[1 line]

COMPREHENSIVE EVALUATION OF *IRIS PUMILA* L. POPULATIONS STATUS IN UKRAINE

Aim. *Iris pumila* L. (Iridaceae), typical steppe xerophyte, which is protected in several regions of Ukraine. Area of the species range has suffered a significant decline and fragmentation over the recent centuries. The comprehensive population studies were conducted to elucidate the effects of these processes and determine the indices that can be used as well-timed signals of species extinction risk. **Methods.** Ecological and population studies were combined with ISSR-analysis of genetic diversity to characterize the populations of *I. pumila*. **Results.** A number of population and ecological indicators suggests that *I. pumila* in Ukraine may be referred to regressive species threatened by genetic erosion. Moreover, the results of ISSR-analysis of plants from four populations in Mykolayiv and Poltava regions showed relatively high levels of the species genetic diversity and weak divergence of isolated populations. **Conclusions.** The reduction and fragmentation of *I. pumila* habitat first of all is accompanied by decline in ecological and population indicators, but depletion of the populations' gene pool occurs much slower. To adequately determine the risk of genetic erosion in particular species, apart from assessment of population and ecological indicators, evaluation of species genetic resources using molecular markers is needed. **Keywords:** genetic resources, *Iris pumila* L., population studies, PCR markers, threatened species.

Examples of references

▪ Articles:

- Gamelin F.X., Baquet G., Berthoin S., Thevenet D., Nourry C., Nottin S., Bosquet L. Effect of high intensity intermittent training on heart rate variability in prepubescent children. *Eur. J. Appl. Physiol.* 2009. Vol. 105. P. 731–738. doi: 10.1007/s00421-008-0955-8.
- Zaverukha B.V. Novi dani do khorolohii ta fitoŝenotychnoi pryurochenosti ridkisnogo reliktovoho vydu *Carlina onopordifolia* Bess. ex Szafer, Kulcz. et Pawl. *Ukr. botan. zhurn.* 1981. T. 38, № 2. S. 49–52. [in Ukrainian] / Заверуха Б.В. Нові дані до хорології та фітоценотичної приуроченості рідкісного реліктового виду *Carlina onopordifolia* Bess. ex Szafer, Kulcz. et Pawl. *Укр. ботан. журн.* 1981. Т. 38, № 2. С. 49–52.

▪ Books:

- Lersten N.R. Flowering plant embryology. Ames (USA): Blackwell Publishing, 2004. 212 p.
- Mel'nychuk M.D., Novak T.V., Kunakh V.A. Biotekhnolohiia roslyn. K.: Polihraf Konsaldynh, 2003. 520 s. [in Ukrainian] / Мельничук М.Д., Новак Т.В., Кунах В.А. Біотехнологія рослин. К.: Поліграф Консалдинг, 2003. 520 с.

▪ Abstracts:

- Morgun B.V., Bannikova M.O., Fedorenko T.V., Markovskiy O.V., Vlasova O.M., Kuchuk M.V. Worldwide spreading and identification of transgenic *Z. mays* in Ukraine. *Modern Aspects of Plant Genetic Engineering: abstract of International Scientific Conference (Kiev, May 30 – June 1, 2011).* Kiev, 2011. P. 48.
- Mosula M.Z., Konvaliuk I.I., Mel'nyk V.N., Drobyk N.M., Kunakh V.A. ISSR-analiz nekotorykh populatsiy *Gentiana lutea* L. Ukraynskykh Karpat. *Molekuliarno-genetycheskiye podkhody v taksonomyyu y ekolohyy: tezysy dokladov nauchn. konf. (Rostov-na-Donu, 25–29 marta 2013 h.).* Rostov-na-Donu: IuNTs RAN, 2013. S. 62. [in Russian] / Мосула М.З., Конвалюк И.И., Мельник В.Н., Дробык Н.М., Кунах В.А. ISSR-анализ некоторых популяций *Gentiana lutea* L. Украинских Карпат. *Молекулярно-генетические подходы в таксономии и экологии: тезисы докладов научн. конф. (Ростов-на-Дону, 25–29 марта 2013 г.).* Ростов-на-Дону: ЮИЦ РАН, 2013. С. 62.

- **Digital Sources:**
 - Guerra F.P., Wegrzyn J.L., Sykes R., Davis M.F., Stanton B.J., Neale D.B. Association genetics of chemical wood properties in black poplar (*Populus nigra*). *New Phytol.* 2013 Vol. 197 (1). P. 162–176. doi: 10.1111/nph.12003. URL: <https://www.ncbi.nlm.nih.gov/pubmed/23157484> (last accessed: 17.12.2017).
 - Boronnykova S.V., Svetlakova T.N., Boboshyna Y.V. Molekul'arno-henetycheskyi analiz *Populus tremula* L. na osnovanyu polymorfyzma IRAP y ISSR markerov. *Conservation of Forest Genetic Resources of Siberia: tezysy dokl. mezhdunar. konf.* (Krasnoïarsk, 23–29 avhusta 2011 h.). URL: <http://conf.nsc.ru/cfgrs2011/reportview/46716> (data obrashchenuïa: 17.03.2017). [in Russian] / Боронникова С.В., Светлакова Т.Н., Бобошина И.В. Молекулярно-генетический анализ *Populus tremula* L. на основании полиморфизма IRAP и ISSR маркеров. *Conservation of Forest Genetic Resources of Siberia: тезисы докл. междунар. конф.* (Красноярск, 23–29 августа 2011 г.). URL: <http://conf.nsc.ru/cfgrs2011/reportview/46716> (дата обращения: 17.03.2017).

- **Patents:**
 - Drobyk N.M., Melnyk V.M., Hrytsak L.R., Leskova O.M., Kunakh V.A. Method of microclonal multiplication of *Gentiana lutea* L. and *Gentiana acaulis* L.: Patent for utility model 21499 Ukraine. № u200610671; applied on 09.10.2006, published on 15.03.2007, bulletin № 3.
 - Sposib ukorinennâ *in vitro* roslyn vydiv *Carlina sirsioides* Klok. ta *Carlina onorordifolia* Bess. ex Szaf., Kulcz. Et Pawl.: pat. 116640 Ukraina: МПК (2017.01) S12 N 5/00, 5/04 (2006.01); A 01 N 4/00. № u 2016 13335; zaïavl. 26.12.2016; opubl. 25.05.2017, Вiл. №°10. 4 s. [in Ukrainian] / Спосiб укорiнення *in vitro* рослин видiв *Carlina cirsioides* Klok. та *Carlina onopordifolia* Bess. ex Szaf., Kulcz. Et Pawl.: пат. 116640 Україна: МПК (2017.01) С12 N 5/00, 5/04 (2006.01); А 01 Н 4/00. № u 2016 13335; заявл. 26.12.2016; опубл. 25.05.2017, Бюл. №°10. 4 с.

- **Dissertation abstracts:**
 - Novosad I.Y. Technological procurement for manufacture of sections of working attachments of screw conveyors: dissertation abstract of Candidate of Technological Sciences. Ternopil, 2007. 20 p.
 - Tihunova O.O. Otrymannâ shtamiv-produĉsentiv rodu *Clostridium* z pidvyshchenym rivnem syntezy butanolu: avtoref. dys. ... kand. biol. nauk. Kyïv, 2016. 24 s. [in Ukrainian] / Тiгунова О.О. Отримання штамiв-продуцентiв роду *Clostridium* з пiдвищеним рiвнем синтезу бутанолу: автореф. дис. ... канд. бiол. наук. Киïв, 2016. 24 с.

- **Dissertations:**
 - Spiridonova K.V. Study of peculiarities of genome variability of *Rauwolfia serpentina* Benth cultivated cells: dissertation of Candidate of Biological Sciences. Kyiv, 2000. 149 p.
 - Spiridonova K.V. Vyvchennâ osoblyvosteï henomnoï minlyvosti kul'tyvovanykh klityn rauvol'fiï zmiïnoï *Rauwolfia serpentina* Benth.: dys. ... kand. biol. nauk. K., 2000. 149 s. [in Ukrainian] / Спiрiдонова К.В. Вивчення особливостей геномної мiнливостi культивованих клiтин раувольфiї змiïноï *Rauwolfia serpentina* Benth.: дис. ... канд. бiол. наук. К., 2000. 149 с.

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