

Conference on taxonomy and evolutionary plant morphology dedicated to 85 anniversary of V.N.Tikhomirov

Monday, January 30, 2017

Registration: 10.00 to 18.00.

Room 535 Faculty of Biology of Moscow State University (Department of Higher Plants, 5th floor)

14.00. Guided tour to greenhouses of the old territory of the Botanic Garden of Moscow University (<https://www.hortus.ru/about-us>), Prospekt Mira, 26.1. Those wishing to participate should inform the organizing committee (konf.tikhomirov.2017@gmail.com).

Tuesday, January 31, 2017

Registration from 9.00.

Near lecture theatre M1 of Faculty of Biology of Moscow State University

Conference opening

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: A.S. Zernov

10.00 – 10.10. Conference opening. Dean of Faculty of Biology academician M.P. Kirpichnikov.

10.10 – 10.25. Sokoloff D.D. (Moscow). Ideas of V.N. Tikhomirov and current problems of plant taxonomy and evolutionary morphology.

10.25 – 10.40. Avilova K.V. (Moscow). V.N. Tikhomirov and nature protection in Russia.

10.40 – 10.55. Deviatov A.G., Kalinichenko I.M. (Moscow) Some publications of V.N. Tikhomirov as electronic resources and addition to bibliography of publications of V.N. Tikhomirov.

10.55 – 11.10. Seregin A.P. (Moscow). Project of digitization of the Herbarium of Moscow State University (MW).

11.10 – 11.30 – coffee break

Section «Evolutionary morphology»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: D.D. Sokoloff

11.30 – 11.50. Ivanov V.B., Zhukovskaya N.V., Bystrova E.I. (Moscow). Correlation between haploid DNA content, taxonomic position, life form, ecology, growth and division of cells in roots of seedlings.

11.50 – 12.10. Bachelier J.B. (Berlin), Razik I., Seago J.L. Jr. (New-York). Root structure and anatomy of *Austrobaileya scandens* (Austrobaileyaceae) and its implications for the evolution of roots in flowering plants.

12.10 – 12.30. Romanova M.A., Evkaikina A.I., Klimova E.A., Tyutereva E.V., Dobryakova K.S., Ivanova A.N. (St. Petersburg), Pawlowski K. (Stockholm), Berke L. (Wageningen, Netherlands), Proux-Wera E. (Stockholm), Voitsekhovskaja O.V. (St. Petersburg). Evolutionary homologies of leaves in higher plants: do molecular genetic data allow resolving the question?

12.30 – 12.50. Spirina U.N. (Tver), Voronkova T.V. (Moscow). On homologies of paraphyllia and pseudoparaphyllia in mosses.

12.50 – 13.40 – lunch break

Section «Evolutionary morphology»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: D.D. Sokoloff

13.40 – 14.00. Pozhidaev A.E. (St. Petersburg). Morphological evolution – phylogenesis, semophylysis, morphogenesis or metamorphosis?

14.00 – 14.20. Notov A.A. (Tver). General evolutionary morphology of modular organisms: mirage or lighthouse?

14.20 – 14.40. Rudskiy I.V. (St. Petersburg). Developmental programs and evolutionary transformations of plant tissues and organs.

14.40 – 15.00 – coffee break

Section «General problems of phylogenetic taxonomy»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: A.V. Troitsky

15.00 – 15.20. Schanzer I.A. (Moscow). Taxonomy and phylogeny of the genus *Filipendula* (Rosaceae): morphological-geographical method of V.L. Komarov and molecular phylogenetics.

15.20 – 15.40. Rodionov A.V., Dobryakova K.S., Nosov N.N., Punina E.O. (St. Petersburg). The system of ribotypes in species of *Elymus* (Poaceae) does not agree with any system of sections and subsections proposed by taxonomists on the basis of comparative morphology.

15.40 – 16.00. Kurchenko E.I. (Moscow). Objective and subjective approaches in determination of species rank (in terms of Poaceae family).

16.00 – 16.20. Tikhomirov V. N. (Minsk). Molecular phylogenetics and a new system of *Stellaria* L. s. l. (Caryophyllaceae).

16.20 – 16.40 – coffee break

Section «General problems of phylogenetic taxonomy»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: A.P. Seregin

16.40 – 17.00. Sennikov A.N. (Helsinki, St. Petersburg). Taxonomic circumscription and ranking as major difficulties in plant classification.

17.00 – 17.20. Kulikovskiy M.S., Kuznetsova I.V. (Borok). Can fossil diatoms be integrated into the current system based on molecular approaches?

17.20 – 17.40. Yurtseva O.V. (Moscow). Hennig's principles of cladistics as applied to *Atraphaxis* and *Polygonum* (Polygoneae, Polygonaceae).

17.40 – 18.10. Pavlinov I.Ya. (Moscow). Taxonomic monism vs. pluralism.

18.20 – 20.00 – Reception

Room 519 of Biological Faculty of Moscow State University (Department of Higher Plants, 5th floor)

Wednesday, February 1, 2017

Section «Taxonomy and evolution of particular taxa»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: M.S. Ignatov

9.30 – 9.45. Moskalenko S.V., Temraleeva A.D., Pinsky D.L. (Pushchino). A new classification of green microalgae of the genera *Tetracystis* and *Spongiococcum* (Chlorophyta) on the basis of data of morphology and 18S-rRNA.

9.45 – 10.00. Temraleeva A.D. (Pushchino), Sinetova M.A. (Moscow). A new species of *Watanabea* (Trebouxiophyceae, Chlorophyta): morphological, ultrastructural, molecular and ecological evidence.

10.00 – 10.15. Andreeva S.A., Maltsev E.I., (Borok), Podunai Yu.A. (Feodosia). A new diatom genus from Indonesia.

10.15 – 10.30. Glushchenko A.M. (Kaluga), Kuznetsova I.V. (Borok). New and interesting species of the genus *Luticola* D.G. Mann 1990 (Bacillariophyceae) from water bodies of South-East Asia.

10.30 – 10.45. Bakalin V.A. (Vladivostok), Vilnet A.A. (Apatity). Speciation of liverworts (Hepaticae) in a contact zone of circumboreal and East Asian floras of Pacific Asia.

10.45 – 11.00. Fedosov V.E., Ignatova E.A., Fedorova A.V., Kuznetsova O.I. (Moscow). The farther, the closer? On distribution of some moss taxa and haplotypes.

11.00 – 11.20 – coffee break

Section «Taxonomy and evolution of particular taxa»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: A.P. Seregin

11.20 – 11.40. Averyanov L.V., Maisak T.V. (St. Petersburg). New data on orchid diversity of Vietnam, 2012-2016.

11.40 – 12.00. Sabu M., Joe A. (Calicut, India). Additions to Indian Musaceae since Hooker's Flora of British India (1892).

12.00 – 12.20. Sirimongkol S., Hodgkinson T., Parnell J. (Dublin). The extremely variable *Henckelia* Spreng. (Gesneriaceae) surveyed in Thailand.

12.20 – 12.40. Shepeleva E.A. (Moscow), Chantanaorrapint S. (Hat Yai, Thailand), Hroneš M. (Olomouc, Czech Republic), Shek Shing Mar (Hong Kong), Logacheva M.D., Nuraliev M.S. (Moscow). Phylogeny of the genus *Thismia* (Thismiaceae, Dioscoreales) with emphasis on Southeast Asian species, and evolution of its main morphological traits.

12.40 – 13.40 – lunch break

Section «Taxonomy and evolution of particular taxa»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: T.E. Kramina

13.40 – 14.00. Siljak-Yakovlev S. (Paris), Hidalgo O. (Kew), Garnatje T., Valles-Xirau J. (Barcelona). Basic chromosome number and genome size changes during dysploidy in the genus *Reichardia* (Asteraceae, Cichorieae): evolutionary implications of heterochromatin and rRNA genes.

14.00 – 14.20. Kutlunina N.A. (Ekaterinburg). Evaluation of the genetic diversity of triploid and tetraploid populations of *Gladiolus tenuis* (Iridaceae) by ISSR-marking.

14.20 – 14.40. Feodorova T.A. (Moscow), Mosyakin S.L. (Kiev, Ukraine), Karlov G.I. (Moscow). The origin of natural hybrids between *Chenopodium acerifolium* and *C. strictum* s.l. (Chenopodiaceae) and their identification.

14.40 – 15.00. Speranskaya A.S., Krinitsina A.A., Logacheva M.D., Belenikin M.S. (Moscow). Next generation sequencing and comparative analysis of complete sequences of plastid genomes in several species of the genus *Allium* (Alliaceae).

15.00 – 15.20 – coffee break

Section «Taxonomy and evolution of particular taxa»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: T.E. Kramina

15.20 – 15.35. Bobrov A.A., Maltseva S.Yu., Movergoz E.A. (Borok), Wiegleb G., Zalewska-Gałosz J. (Krakow). A revision of rigid-leaved water crowfoots of *Ranunculus circinatus* group (*Batrachium*, Ranunculaceae).

15.35 – 15.50. Samigullin T.H., Valiejo-Roman C.M., Degtjareva G.V., Terentieva E.I. (Moscow). Complete sequences of six plastid genomes of members of subfamilies Papilionoideae and Caesalpinioideae (Fabaceae).

15.50 – 16.05. Knyazev M.S., Filippov E.G., Dymshakova O.S., Belyaev A.Yu., Kutlunina N.A. (Ekaterinburg). Preliminary results of population genetic studies (isozyme analysis) of species and races of *Astragalus* sect. *Helmia* (Fabaceae) in the Urals.

16.05 – 16.20. Sytin A.K., Ryazanova L.V., Slastunov D.D., Khmarik A.G. (St. Petersburg). Phylogenetic tree of annual species of *Astragalus* (Fabaceae) constructed on the basis of computer analysis of phenetic characters.

16.20 – 16.40 – coffee break

Section «Taxonomy and evolution of particular taxa»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: M.D. Logacheva

16.40 – 16.55. Lyskov D.F., Samigullin T.H. (Moscow). Molecular phylogenetic study of species complex *Seseli gummiferum* Pall. ex Sm. in Crimea, Caucasus and SW Asia.

16.55 – 17.10. Ukrainskaya U.A., Terentieva E.I., Kljuykov E.V. (Moscow). Taxonomic revision of endemic species of the genus *Semenovia* (Umbelliferae-Apioideae) distributed in northern Pamir-Alay based on analysis of morphological data and nrITS sequences.

17.10. – 17.25. Kashin A.S., Kritskaya T.A., Parkhomenko A.S., Kondratyeva A.O., Petrova N.A. (Saratov). Polymorphism of species of *Chondrilla* (Asteraceae) of European Russia.

17.25 – 17.40. Degtjareva G.V., Efimov S.V., Varlygina T.I., Valiejo-Roman C.M. (Moscow). Comparative analysis of nuclear ribosomal ITS sequences in Far Eastern species related to *Paeonia obovata* L. (Paeoniaceae).

17.40 – 17.55. Borisyuk A.A., (Moscow), Bartish I.V. (Prague, Czech Republic). Genetic structure of natural populations of *Hippophae rhamnoides* ssp. *mongolica* Rousi (Elaeagnaceae).

18.00 – 19.00 – workshop on methods of analysis of biogeographic and morphological data (organizer – D.F. Lyskov)

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Thursday, February 2, 2017

Section «Morphological evolution»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: R.P. Barykina

9.30 – 9.45. Barykina R.P., Alyonkin V.Yu. (Moscow). Taxonomy and possible ways of somatic evolution in Boraginaceae: evidence from morphological and anatomical study of the family

9.45 – 10.00. Nedoseko O.I., (Arzamas), Viktorov V.P. (Moscow). Phylogenetic relations of life forms and architectural modules of boreal willows of subgenera *Salix* and *Vetrix* (Salicaceae).

~~10.00 – 10.15. Kharchenko V.E. (Lugansk), Sheherbakov D.Yu., Mincheva E.V., Poroshina A.A. (Irkutsk), Petrunenko E.S. (Vladivostok). Variation of structure of reproductive shoots of *Anemone* L. (Ranunculaceae).~~

10.15 – 10.30. Savinykh N.P., Shabalkina S.V. (Kirov). Formation of storage organs in plants of habitats with unstable dampness in course of evolution.

10.30 – 10.45. Platonova A.G., Filin V.R. (Moscow). On morphological interpretation of *Matonia* leaf (Matoniaceae, Gleicheniales).

10.45 – 11.00. Fomichev C.I. (Moscow). Structural diversity and evolution of leaves and taxonomy of Australian Restionaceae s. l.

11.00 – 11.15. Andreeva E.A., Notov A.A. (Tver) Morphological aspects of diversity of anomalous flowers in *Alchemilla vulgaris* complex (Rosaceae).

11.15 – 11.40 – coffee break

Section «Morphological evolution»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: M.S. Ignatov

11.40 – 12.00. Nadot S., Sauquet H., Jabbour F. (Paris), Domenech B. (Montreal), Damerval C. (Paris). Perianth evolution in Ranunculales.

12.00 – 12.15. Eberwein R.K. (Klagenfurt, Austria). Morpho-anatomical notes on *Thonningia sanguinea* (Langsdorffieae, Balanophoraceae).

12.15 – 12.30. Sinjushin A.A. (Moscow). Beyond trends of floral evolution in Leguminosae: no need to be stable.

12.30 – 12.45. Nuraliev M.S. (Moscow), Oskolski A.A. (St. Petersburg, Johannesburg), Beer A.S. (Moscow). Groundplan of fertile and sterile flowers of *Osmoxylon* (Araliaceae) in the light of anatomical and morphogenetic data.

12.45 – 13.00. Remizova M.V. (Moscow). Where are the margins? Some structural aspects of carpels in monocots.

13.00 – 13.15. Sokoloff D.D. (Moscow). Morphological evolution of Helobiae (core Alismatales).

13.15 – 14.30 – lunch break

Section «Paleobotany and palynology»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: E.E. Severova

14.30 – 14.50. Broushkin A.V., Gordenko N.V. (Moscow). Spongiophytales (enigmatic Devonian plants with thick cuticle): current state of problem.

14.50 – 15.10. Filin V.R., Platonova A.G. (Moscow). Silicified sporoderm of hornworts – apomorphic or plesiomorphic character?

15.10 – 15.30. Polevova S.V. (Moscow). Granular structures in developing and definitive sporoderms of bryophytes.

15.30 – 15.50. Akhmetiev M.A. (Moscow). Leaf morphology of Rosaceae in extant and fossil Cenozoic floras of Eurasia.

15.50 – 16.10 – coffee break

Section «Paleobotany and palynology»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: M.A. Akhmetiev

16.10 – 16.25. Naryshkina N.N. (Vladivostok). Experience of use of scanning electron microscope in research of thermophilic Fagaceae: importance for paleoecological and paleogeographic reconstructions of East Asia.

16.25 – 16.40. Avramenko A.S., Likhacheva O.Yu. (Vladivostok). Morphological variation of representatives of the genus *Aulacoseira* Thwaites (Bacillariophyta) in middle Miocene–Pliocene of Southern Primorye.

16.40 – 16.55. Gavrilova O.A., Tikhonova O.A., Ivanova A.N., Kostina O.V. (St. Petersburg). Sporoderm structure and taxonomy of the genus *Ribes* L. (Grossulariaceae).

16.55 – 17.10. Zavialova N.E., Sokolova A.B. (Moscow). Use of characters of morphology and ultrastructure of pollen grains in taxonomy of the family Cupressaceae.

17.10 – 17.30 – coffee break

Section «Embryology and carpology»

Lecture Theatre of Greenhouse building of Biological Faculty of Moscow State University

Chair: A.G. Deviatov

17.30 – 17.45. Shamrov I.I. (St. Petersburg). Possible transformations of angiosperm ovules.

17.45 – 18.00. Titova G.E., Yakovleva O.V., Zhinkina N.A., Pushkareva L.A., Geltman D.V. (St. Petersburg). To comparative embryology of *Euphorbia* subgen. *Esula* (Euphorbiaceae): seed development in species of sections *Holophyllum*, *Helioscopia*, *Esula* and *Tithymalus*.

18.00 – 18.15. Pushkareva L.A. (St. Petersburg). On differences in modes of transitions to pseudomonocotly in embryos of *Pinguicula vulgaris* L. (Lentibulariaceae).

18.15 – 18.30. Konstantinova A.I., Nilova M.V., Filatova I.O., Romanova E.S., Leontyeva M.R. (Moscow). Features of pericarp structure and secretory system of fruits in some species of *Pittosporum* and *Aurantocarpa* (Pittosporaceae).

18.30 – 18.45. Zaichenko S.G., Zernov A.S. (Moscow) Seed anatomy and taxonomy of *Minuartia* s. l. (Caryophyllaceae).

Friday, February 3, 2017

Section «Taxonomy and evolution of particular taxa»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: A.S. Zernov

9.30 – 9.45. Kazakova M.V., Kugusheva A.S. (Ryazan). A complex approach in studies of *Iris aphylla* L. on the Russian plain.

9.45 – 10.00. Shcherbakov A.V., Lyubeznova N.V. (Moscow). Once again on East European species of *Ceratophyllum* L. (Ceratophyllaceae).

10.00 – 10.15. Mikhailova M.A. (St. Petersburg). On monotypic sections in the genus *Corydalis* DC. (Fumariaceae).

~~10.15 – 10.30. Plaksina T.I. (Samara). Taxonomy of the genus *Thymus* L. in the Volga-Ural region.~~

10.30 – 10.45. Reshetnikova N.M. (Moscow). «A new species?» for Middle Russia – *Epilobium lamyi* F. Schultz: morphological characters and distribution.

10.45 – 11.00. Melnikov D.G. (St. Petersburg). Limits of the genus *Clinopodium* L. (Lamiaceae) and related Eurasian genera.

11.00 – 11.20 – coffee break

Section «Plant evolution»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: E.E. Severova

11.20 – 11.40. Konstantinova N.A., Vilnet A.A. (Apatity). Modern system of liverworts and major tendencies in development of liverwort taxonomy.

11.40 – 12.00. Ignatov M.S. (Moscow), Spirina U.N. (Tver), Fedosov V.E., Ignatova E.A. (Moscow). Can haplolepidous mosses be diplolepidous?

12.00 – 12.20. Ignatov M.S. (Moscow), Pyatkovsky B.T. (Durham, USA). Can symplesiomorphy be meaningful?

12.20 – 12.40. Maslova E.V. (Belgorod), Ivanov O.V. (Moscow). On the origin of sphagnalean leaf cell dimorphism in Bryophytes.

12.40 – 13.40 – lunch break

Section «Plant evolution»

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: A.V. Troitsky

13.40 – 14.00. Kramina T.E. (Moscow). Molecular markers and methods in studies of species complexes and widely distributed species.

14.00 – 14.20. Mikhailova Yu.V. (St. Petersburg). Reconstruction of intraspecific genealogy of highly polymorphic sequences of ITS1-5,8S-ITS2 using the method of statistical parsimony.

14.20 – 14.40. Goryunova S.V., Semikhov V.F., Trifonova A.A. (Moscow), Gnutikov A.A., Rodionov A.V. (St. Petersburg). Saltational transformations of sequences of 18S gene of rRNA and intergenic region rrn18-rrn5 of grass mitochondrial genome.

14.40 – 15.00. Kotseruba V.V., Machs E.M. (St. Petersburg), Probatova N.S. (Vladivostok), Houben A., Blattner F. (Gatersleben, Germany). Molecular polymorphism of the species *Milium effusum* L. (Poaceae).

15.00 – 15.20. Gavrilenko T.A., Chukhina I.G., Antonova O.Yu., Klimenko N.S., Novikova L.Yu. (St. Petersburg). On the origin of Chilean cultivated potato (*Solanum* sect. *Petota* Dumort.).

15.20 – 15.40 – coffee break

Section «Evolution and reproductive biology of plants »

Lecture theatre M1 of Faculty of Biology of Moscow State University

Chair: D.D. Sokoloff

15.40 – 16.00. Volis S., Zhang Y.-H., Deng T. (Kunming, China). Incipient speciation in *Oncocylus* irises (Iridaceae): ecological divergence with no reproductive isolation?

16.00 – 16.20. Vislobokov N.A. (Moscow). Similarities and differences in floral biology of sympatric species of *Balanophora* (Balanophoraceae): *B. fungosa* and *B. harlandii*.

16.20 – 16.40. Vinogradova Yu.K., Kuklina A.G., Tkacheva E.V. (Moscow). Flower structure in plants of the hybrid complex *Reynoutria* Houtt. (Polygonaceae).

16.40 – 17.00. Majorov S.R. (Moscow) The importance of lag-phase in the origin of new invasive species.

17.00 – 17.20. Kravets E.A. (Kiev). Cytomixis in a population of microsporocytes can perform a function of primitive sexual process.