



INSTITUTE OF DENDROLOGY

POLISH ACADEMY OF SCIENCES

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Kórnik 22/07/2021

**Announcement about recruitment to the Poznań Doctoral School
of the Institutes of the Polish Academy of Sciences
at the Institute of Dendrology, Polish Academy of Sciences,
No. 16/2021/ID/PSD**

I. Position type: doctoral student

II. Number of vacancies: 1

III. Discipline: biological sciences

IV. Application deadline: 3/09/2021

V. Detailed information about recruitment process can be found on the website:

<http://www.idpan.poznan.pl/doctoral-school-pds-ipas/information-on-recruitment-at-the-institute-dendrology-pas> and <https://www.ibch.poznan.pl/pl/main-pl/st-doktoranckie/psd-ipan/>

VI. Research topic: Ecological consequences of clonal reproduction and dioeciousness exemplified with *Populus alba* L.

VII. Principal Investigator / Research group: dr. hab. Grzegorz Iszkuło, Department of Biogeography and Systematics

VIII. Project Description:

The most important goal of the project is the analysis of the influence of clonality and dioeciousness on the growth rate, climatic reaction and spatial structure of the white poplar.

In our research, we assume that clonally reproducing individuals (ramets that form unique genetic clone) will have a higher growth rate than singletons, i.e. single individuals not represented by a larger number of ramets. The reason may be that clonal plants can share resources between ramets and have "division of labor" strategy and/or a ramet strategy of limiting investment in generative structures (flowers and fruits) implying redirection of resources to growth. Additionally, we will check whether female and male individuals differ in their growth response in interaction with clonality. We assume that females invest more resources in generative reproduction and males in growth and clonal reproduction. At the same time, female individuals should be more sensitive to stress related to the climate (e.g. droughts, floods, low temperatures). Therefore, we expect the occurrence of spatial segregation of sexes, within which female individuals may be situated in rich in nutrients and water habitat (e.g. lower situated), and male individuals in higher locations, facilitating their pollen spread.

To achieve the research goals, we will use genetic analyzes to check each individual (ramet) for belonging to a specific genet. We will analyze the growth rate and the influence of the climate by examining the tree-ring width using the dendrochronological methodology and historical climate data. Possibilities of spatial segregation of male and female individuals will be investigated with statistical methods used in population genetics and ecology.

The tasks of the PhD student will include field research, laboratory works (DNA extraction, genetic analysis using microsatellite markers), and dendrochronological analyses.

The project includes a three-month internship at the University of Greifswald under the supervision of prof. Martin Wilmking and prof. Martin Schnittler.

We expect that the research results will allow them to be disseminated in the best international journals and will be the basis of the doctoral dissertation, and will also be presented at international conferences.

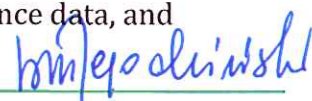
As part of the project, we offer the opportunity to conduct research in an experienced research team. We provide support in carrying out works based on the latest research directions and experience in publishing research results in leading scientific journals. We create an atmosphere of good cooperation and open exchange of ideas.

IX. Additional information:

1. Research and doctoral dissertation will be conducted under project: (2020/39/O/NZ8/03019, National Science Centre, Poland).
2. The doctoral student will receive a doctoral scholarship in the amount of 4180.00 PLN gross (3789.00 PLN net) monthly during the entire doctoral studies, 48 months.
3. The doctoral student will have the social insurance costs covered as referred to art. 6 clause 1 point 7b of the Act of October 13, 1998 on the social insurance system (Dz. U. z 2019 r. poz. 300, 303 i 730).

X. Requirements for candidates:

1. Master degree in discipline of biological sciences, forest sciences, environmental science or related or meeting the conditions specified in art. 186 section 2 of the Act of July 20, 2018 Law on Higher Education and Science (Dz. U. z 2018 r., poz. 1668 z późn. zm.).
2. Very good skills in written and spoken English, allowing for preparation of scientific publications and presentation of the results at scientific meetings.
3. Experience in laboratory analyses in the field of genetics or molecular biology.
4. Basic skills in the field of analysis and interpretation of genetic or molecular data documented by previous scientific activity (e.g. conferences, publications).
5. Ability to conducting field investigation.
6. Additional advantages will be the candidate experience in bioinformatics data analyses, analysis using R, experience in the analysis and interpretation of DNA sequence data, and



documented with publications previous research experience in the field of population genetics and genomics, driving licence.

7. Winning the competition for a doctoral scholarship under research project no. 2020/39/O/NZ8/03019 "Ecological consequences of clonal reproduction and dioeciousness exemplified with *Populus alba* L.", financed by the National Science Center as part of the Preludium BIS 2

XI. Required documents:

1. An application to PDS IPAS, including consent for the processing of personal data for the purposes of the recruitment procedure, and a declaration of familiarity with these rules - the current application form is available at <http://www.idpan.poznan.pl/index.php/doctoral-school-pds-ipas/documents-for-candidates-and-ph-d-students>.

2. A copy of the degree certificate confirming graduation or a certificate of graduation; in the case of degree certificates issued by foreign higher education institutions, the certificate referred to in Article 326(2)(2) or Article 327(2) of the Act, giving the right to seek to obtain a doctoral degree in the country under whose higher education system the issuing institution operates. A candidate who does not have the aforementioned documents will be obliged to supply them before being admitted to PDS IPAS. Additional information on foreign diplomas is available on the website: <https://nawa.gov.pl/en/recognition/recognition-for-academic-purposes/applying-for-admission-to-doctoral-studies>

3. A curriculum vitae showing previous education and employment, information on involvement in scientific activity (membership of student scientific groups, participation in scientific conferences, completed internships and training courses, prizes and distinctions received) a list of publications.

4. A motivation letter, containing a short description of interests, scientific accomplishments, and reasons for wishing to study at the doctoral school.

5. Certificates or other documents confirming the candidate's knowledge of English, if the candidate has such.

6. Contact details of at least one previous academic supervisor or other academic employee who has agreed to provide an opinion regarding the candidate.

The application should be sent by e-mail to the address psd.idpan@man.poznan.pl with the subject "**Competition for the position of doctoral student No. 16/2021/ID/PSD**" in the form of an pdf attachment. If sending by electronic means is not possible, applications sent to the address Institute of Dendrology, Polish Academy of Sciences, Department of Scientific Information, Parkowa 5, 62-035 Kórnik, Poland, with the note on the envelope "**Competition for the position of doctoral student No. 16/2021/ID/PSD**" are also accepted. Please do not send original documents.

XII. Application deadline: 03/09/2021

Incomplete applications and applications submitted after the deadline will not be considered.

XIII. Criteria for assessing candidates:



1. The candidate's academic accomplishments, based on grades attained during studies, scientific and popular science publications, scholarships, awards and distinctions resulting from research or student activity, and other achievements.
2. The candidate's academic and professional experience, based on participation in conferences, workshops, training courses and internships, participation in research and commercial projects, involvement in scientific groups and associations, international and professional mobility, and experience in other fields, including in industry.
3. Candidate's knowledge in the biological science discipline.
4. Knowledge of the topics listed in the recruitment notice.

XIV. Competition results: until 20/09/2021

XV. A description of the recruitment process can be found in the Recruitment Regulations for PDS IPAS. After the recruitment is completed, unaccepted candidates will be informed of the scores obtained at each stage of the competition. Admission to PDS IPAS is refused by administrative procedure. The decision may be appealed with to the Director of the Institute of Dendrology of the Polish Academy of Sciences.

Additional information may be provided Principal Investigator: dr. hab. Grzegorz Iszkulo (e-mail: iszkulo@man.poznan.pl, phone: (+48) 61 817 00 33)

DYREKTOR
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prof. dr hab. inż. Andrzej M. Jagodziński