**Naturalis Biodiversity Center**

**Education and Supervision Plan**

**(ESP)**

The Education and Supervision Plan (ESP) describes a PhD candidate's planned education / training / research and teaching activities and agreements on supervision. Although the ESP document has a formal function, it should primarily be seen as a structure that **facilitates** **the planning** of training / education activities and the frequency, format and responsibilities of supervision. Therefore, the candidate should use the ESP to discuss these issues with supervisors so that both parties agree on the PhD candidates training and supervision.

The aim is that this standardised ESP can be used to register a PhD candidate at both Naturalis and many of the University Graduate Schools and national Research / Graduate Schools. Naturalis is a formal member of the C.T. de Wit Graduate School for Production Ecology and Resource Conservation (PE&RC - Wageningen), with members of our staff on the Board (currently Prof. dr. Erik Smets), Research Committee (currently Prof. dr. Menno Schilthuizen), Education Committee (currently Dr. Marco Roos) and PhD Committee (currently Mr. Paul Hoekstra). Naturalis PhD candidates should become a member of *the* national Research School that best fits their research, but as we expect most to register with PE&RC, we have combined the Naturalis – Leiden University ESP with the PE&RC Training and Supervision Plan so that only one form needs to be completed for the different registrations.

The ESP:

* Must be submitted by the PhD candidate before the start of the project.
* Is officially signed by (co)-promotor(s) and supervisor(s), and approved by the Naturalis Scientific Director responsible for Education (Prof. dr. Erik Smets). Therefore, rights and obligations can be obtained from this document.
* Functions at Naturalis also as the initial Performance & Development Interview (Startgesprek) report.

The ESP can be altered in the course of the PhD project; major changes, like changes in (co-)promotor or subject, should be reported to RCO (by e-mail) and to the Naturalis HR department after the next Performance & Development interview.

*For PE&RC members: the PE&RC office must be informed on changes with respect to supervision and research scope. The PE&RC Office does not need to be informed about specific changes in the education/training components as final evaluation of education and training activities occurs upon submission of the Training and Education Statement Form (TESF) at the end of the PhD programme when the reading version of the thesis is submitted for evaluation.*

*Only for PE&RC members: The first version sent to PE&RC is considered a draft version as they will check whether all requirements have been met. The ESP needs to be sent by email to one of the PE&RC PhD Programme Coordinators (**inka.bentum@wur.nl* *or* *claudius.vandevijver@wur.nl**). For more information see the website www.pe-rc.nl.*

**When signed by the PhD candidate, promotor(s), (co-)promotor(s), supervisor(s) and Head of the Research Group, please send** **the** **original to the Naturalis Scientific Director responsible for Education.**

Once signed and approved by the Naturalis Scientific Director responsible for Education and the concerning Graduate School the PhD candidate gets:

* Access to an education budget of € 2500 (for the entire track) - with which education and training activities during the PhD track can be financed (incl. courses at the graduate schools; congress visits and fieldwork are not funded by this budget).
* A possible reduction (generally 50%) in the fee of courses and activities organised by PE&RC.
* A reduction (generally 50%) in the fee of courses organised by WGS (Wageningen Graduate Schools)**[[1]](#footnote-1)**.

The PhD candidate must not only have an approved ESP but also an approved project proposal. In most cases a formal project proposal has been made prior to the start of the PhD project (for instance when it was necessary for obtaining external funding), otherwise Naturalis has a [Naturalis PhD Project form](https://sites.google.com/a/naturalis.nl/social-intranet/home/support/rco/phd-info). The ESP can be submitted prior to the submission of the project proposal. The project proposal must be submitted to the Naturalis Scientific Director responsible for Education & Naturalis Research Coordination Office (RCO) within the first 3 months of the project.

|  |
| --- |
| A. The PhD candidate |
| 1. Name PhD candidate |  |
| 2. Initials |  |
| 3. Gender  | male / female |
| 4. Nationality |  |
| 5. Date of Birth |  |
| 6. Academic education | MSc degree in … (date) at the University of ….. (country) |
| 7. At which university will the PhD thesis be defended? |  |
| 8. Promotor |  |
| 9. Daily supervisor / co-promotor |  |
| 10. 2nd supervisor / co-promotor |  |
| 11. Starting date PhD track |  |
| 12. Envisaged ending date PhD track |  |
| 13. Financial source |  |
| 14. National Research / Graduate School(s) |  |
| B. The PhD Project |
| 15. Title PhD project |
| 16. Project number RCO:  | *If applicable: PE&RC PhD project number (to be filled in by PE&RC): PE&RC-* |
| 17. Is a formal project proposal available?  | Yes / No*If no: the Naturalis PhD project form can be found* [*here*](https://drive.google.com/a/naturalis.nl/folderview?id=0B5Wde04IJq_mX2FoOVFvd0M5NEE&usp=sharing) *(06)*  |
| 18.Key words PhD project (Max five key words) |

|  |
| --- |
| 19. Description PhD project (Max 200 words) |
| 20. Main research activities per year (work plan with planning and phasing of research; including initial review of literature and formulation formal project proposal when not available).Year 1Year 2Year 3Year 4 |
| 21. Research requirements that the PhD candidate has to fulfill during the track.*Think of:**- research goals**- output, eg number of publications, congress participation, visits abroad, …**(Only quantify now, details should be filled in below)* |

**C. TRAINING AND EDUCATION PROGRAMME**

In general, training and education activities of the PhD candidate should focus on obtaining skills:

* In-depth knowledge and insight in the research topic
* Broadening of scientific knowledge and insight
* Obtaining / strengthening of competences and skills
* Placing research in a societal perspective

Moreover, it is essential for PhD candidates to be able to perform in a scientific forum and to obtain a strong profile in an international network of peers. Hence, scientific interaction with peers is given a central position in PhD training and education and is noted as a separate category in the ESP.

Similarly, teaching by the PhD candidate is placed in a separate category. The benefit of teaching in strengthening skills in the PhD programme lies both in the realm of increasing scientific knowledge and insight as well as in the strengthening didactical skills. Therefore teaching is highly recommended and strongly urged.

To facilitate formulating activities to acquire these skills, the Education section of the ESP (below) has been set up in four main categories:

* Category 1: In-depth knowledge and insight
* Category 2: Knowledge overview, skills and competences
* Category 3: Scientific exposure
* Category 4: Teaching

PhD candidates must perform at least 22 weeks of education and training activities. The European Credit Transfer and Accumulation System (ECTS) has been adopted as crediting system (1 ECTS = 28 hours) and thus 32 ECTS must be obtained

|  |  |
| --- | --- |
| Time | ECTS(1 credit = 28 hours) |
| 1 day | 0.3 |
| 2 days | 0.6 |
| 3 days | 0.9 |
| 4 days | 1.2 |
| 5 days | 1.5 |

Besides the minimum of 32 ECTS, credits must be spread out over the four categories. The **minimum** amount of credits (ECTS) requiredand **maximum** amountgiven per sub-category, to comply with the criteria, is given in brackets behind each sub-category heading. When the minimum number per sub-category is not met the TSP will not be approved. There is no maximum as to the total number of ECTS collected per subcategory, but one can only take the maximum ECTS value for each subcategory along for the summation of the total number of collected credits, as indicated in the box at the bottom of page 6. Do note that a summation of minimum credits per subcategory does not lead to the minimum total required.

**CATEGORY 1: IN-DEPTH KNOWLEDGE AND INSIGHT**

**a. Review of literature** **(4.5 ECTS / 4.5 ECTS) \***

* *PhD candidates have to write a review of literature of importance for their research, highlighting theoretical background, scientific, and societal relevance of the PhD project*
* *This review can be:*
* *Part of the process of writing a full project proposal. This applies to PhD candidates who have written, or significantly contributed to the writing of, the project proposal (eg. Sandwich PhD’s) (also see 1b.)*
* *A stand-alone document when the project proposal was not written by the PhD candidate.*

|  |  |  |
| --- | --- | --- |
| **Title of review** | **Year** | **ECTS** |
|  |  |  |

**b. Writing of Project proposal (0 ECTS / 4.5 ECTS) \***

* *As mentioned in 1a credits, can also be obtained when the candidate has made a significant contribution to the project proposal regarding theory, hypotheses and methodology.*
* *The project proposal must be submitted to RCO and the Naturalis Scientific Director responsible for Education* *within 3 months after the start of the project. When approved the proposal can be sent to the relevant Graduate School when applicable.*

|  |  |  |
| --- | --- | --- |
| **Title of proposal** | **Year** | **ECTS** |
|  |  |  |

\* The literature review or full project proposal must be presented orally to a scientific audience.

**c. Postgraduate courses**

* *Postgraduate courses have a higher level than MSc-levelled courses, which belong in Category 2a.*
* *Postgraduate courses can be followed anywhere in the world.*
* *When desired courses are not available or unknown, indicate subject of interest and year in which one hopes to follow a course on this subject.*
* *Two types of postgraduate courses are distinguished:*

**c1. In-depth / Topical / On-site Postgraduate Courses (2.5 ECTS / 5 ECTS)**

* *Online courses are not credited in this category.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Organisers** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |

**c2. Methodological / Statistical Postgraduate Courses (0 ECTS / 2.5 ECTS)**

* *Online courses are credited in this category but the supervisor must give his/her approval on the quality of the course when in doubt.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Organisers** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |

**d. Laboratory training and working visits (0 ECTS / 4.5 ECTS)**

* *This involves training or visits to universities/institutes other than the candidate’s affiliated institute(s).*

|  |  |  |  |
| --- | --- | --- | --- |
| **Topic under investigation** | **Institute** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |

**e. Invited review of journal manuscripts (0 ECTS / 2 ECTS)**

* *Credits are obtained when the PhD candidate reviews a submitted manuscript on request of a journal, and when the promotor/supervisor confirms the active role of the PhD candidate in the review.*
* *One can obtain 1 ECTS per reviewed paper.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Journal** | **Topic** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |

**CATEGORY 2: KNOWLEDGE OVERVIEW, SKILLS AND COMPETENCES**

**a. Deficiency, Refresh, Brush-up courses (0 ECTS / 3** **ECTS)**

* *These courses are not at PhD level (e.g., MSc courses). They are not mandatory but we strongly advise you to list courses that broaden your scope as a PhD candidate.*
* *Online courses are also credited in this category*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Organisers** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |

**b. Competence, Skills and Career courses and activities (2 ECTS / 4.5 ECTS)**

* *These courses and activities are part of:*
* *Development and strengthening of skills and competences needed as a scientist (e.g. writing and presenting skills, time planning and project management, communication skills and beyond.*
* *Obtaining clear career perspectives, e.g. courses or orientation activities.*
* *Courses can be followed anywhere in the world. When no alternative is available online courses can be followed.*

|  |  |  |
| --- | --- | --- |
| **Course title** | **Year** | **ECTS** |
| 1) |  |  |
| 2) |  |  |
| 3) |  |  |
| 4) |  |  |
| 5) |  |  |

**c. Scientific Integrity / Ethics in science activity (0.3 ECTS / 2 ECTS)**

* *This should be an activity on ethics alone or a course element with a clear focus on ethics in science. Altogether, these course elements should at least add up to 0.3 ECTS.*
* *Courses can be followed anywhere in the world. When no alternative is available, even online courses can be followed.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Organisers** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |

**d.Members PE&RC only - PE&RC Weekend, PE&RC Day, and other PE&RC events (1 ECTS / 3 ECTS)**

* *A PE&RC day or a one-day symposium is credited with 0.3 ECTS, the PE&RC weekend for first years with 0.9 ECTS and the PE&RC weekend for midterm and last years with 0.6 ECTS.*
* *Besides the PE&RC day and the PE&RC weekend, other seminars, symposia, or meetings in which PE&RC is involved may be listed.*

|  |  |  |
| --- | --- | --- |
| **Name of the Meeting** | **Year** | **ECTS** |
| 1) |  |  |
| 2) |  |  |
| 3) |  |  |

**CATEGORY 3: SCIENTIFIC EXPOSURE**

**a. Discussion groups, local seminars, or scientific meetings (4.5 ECTS / 7.5 ECTS)**

* *PE&RC facilitates and acknowledges a number of discussion groups, see www.pe-rc.nl/discussion-groups*
* *Other forms of regular scientific interaction with peers (anywhere) are also valid under this heading.*
* *Consider ± 0.1 ECTS for a 2-hour meeting and 1.5 ECTS per year active participation in a discussion group.*
* *Participation in more than one discussion forum is encouraged.*
* ***Research / chair group meetings may not be listed.***

|  |  |  |
| --- | --- | --- |
| **Name of the discussion group, local seminar or other scientific meeting** | **Years** | **ECTS** |
| 1) |  |  |
| 2) |  |  |
| 3) |  |  |
| 4) |  |  |
| 5) |  |  |

**b. International symposia, workshops and conferences (3 ECTS, at least 2 meetings / 9.0 ECTS)**

* *Credits can only be obtained when the candidate presents a poster or a talk at the meeting.* ***Participation without presentation is not credited.***
* *Credits obtained: 1 ECTS is obtained for the presentation or poster, which is added to the ECTS obtained for attendance (0.3 ECTS per day). So, a two-day meeting results in 1.6 ECTS.*
* *When an international meeting on a subject of interest is not scheduled yet, indicate subject of interest and year in which you hope to participate. To aid this, one can think of the annual meeting of societies that cover the field.*

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of international symposium, workshop, or conference** | **Location** | **Year** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |
| 4) |  |  |  |
| 5) |  |  |  |

**c. Societally relevant exposure (0 ECTS / 1.5 ECTS)**

* *Credits can be obtained for any kind of societally relevant outreach activity. Examples include: TV / radio interview, newspaper/press article, popular science magazine article, blog, guest lecture at primary or secondary school, etc.*

|  |  |  |
| --- | --- | --- |
| **Name of the activity** | **Year** | **ECTS** |
| 1) |  |  |
| 2) |  |  |
| 3) |  |  |

**CATEGORY 4: TEACHING**

Naturalis PhD candidates are strongly urged to participate in teaching activities (i.e., lecturing, supervising MSc and BSc theses). These activities are credited, if personal learning outcomes are defined a-priori and can be demonstrated a-posteriori.

Teaching activities that are credited and that may be listed:

* Lecturing: The PhD candidate prepares and gives lectures (guest lecture or lecture series). This also includes preparation of lecture and/or teaching material.
* Supervision of practicals / tutorials provided that the PhD candidate is involved in organisation and development of sessions and material.
* Supervision of research-focussed BSc and MSc theses, provided that the PhD candidate is the daily supervisor.

**a. Lecturing / Supervision of practicals / tutorials (0 ECTS / 3 ECTS)**

* *0.3 ECTS per lecture or day of practical/tutorial supervision (includes preparation time)*

|  |  |  |  |
| --- | --- | --- | --- |
| **Course title** | **Year** | **No. of days** | **ECTS** |
| 1) |  |  |  |
| 2) |  |  |  |
| 3) |  |  |  |
| ***Personal learning outcomes:*** |

**b. MSc / BSc thesis supervision (0 ECTS / 3 ECTS)**

* *3 ECTS can be obtained for a 6-month project*

**Will you be supervising students? YES / NO**

**If yes, what arrangements have been made with PhD supervisors with respect to:**

|  |
| --- |
| *Decision on who determines whether the students will work with you:* |
| *If known, specifications on what the topic will be that the students will work on:* |
| *Agreement of authorship and data property:* |
| *Examination of the student:* |
| ***Personal learning outcomes:*** |
| *Expected time investment:* | *weeks* |  *ECTS* |

**Total Credits**

The idea is that you collect at least the minimum number of credits for each subcategory. There is no maximum as to the total number of ECTS collected per subcategory, but one can only take the maximum ECTS in each subcategory along for the summation of the total number of collected credits here.

|  |  |
| --- | --- |
| **Total credits (ECTS) for education, training, and teaching activities****(Sum of category 1-4. Minimum required = 32 ECTS)** |  |

**D1. SUPERVISION ARRANGEMENTS**

*This section is not only meant for the supervisor to say what he/she wants and thinks with respect to supervision but also what the PhD candidate wants. Therefore, the PhD candidate must discuss these issues in detail with the supervisor(s) before filling in the section. Involvement and tasks/responsibilities of supervisors can change during the PhD track, provided that they are discussed with the PhD candidate.*

*Moe specifically, the frequency (avg. hours per week or days per month), format (i.e. weekly / monthly meetings based on appointments or more on an ad hoc basis) and responsibilities of supervisors (who does what) are described. When research is (partly) conducted abroad please elaborate (under Additional) on supervision when abroad and if/how often the supervisors will visit the PhD candidate.*

***Principal Supervisor / Promotor [[2]](#footnote-2)***

|  |  |
| --- | --- |
| Name: |  |
| Frequency |  |
| Format/ Type |  |
| Field of expertise relevant for the project |  |
| Additional: |  |

***Supervisor 2***

|  |  |
| --- | --- |
| Name: |  |
| Task/ Position ***2*** |  |
| Frequency |  |
| Format/ Type |  |
| Field of expertise relevant for the project |  |
| Additional: |  |

***Supervisor 3***

|  |  |
| --- | --- |
| Name: |  |
| Task/ Position ***2*** |  |
| Frequency |  |
| Format/ Type |  |
| Field of expertise relevant for the project |  |
| Additional: |  |

***Supervisor 4***

|  |  |
| --- | --- |
| Name: |  |
| Task/ Position  ***2*** |  |
| Frequency |  |
| Format/ Type |  |
| Field of expertise relevant for the project |  |
| Additional: |  |

**Evaluation of progress and process, and the Go / No-Go**

|  |  |
| --- | --- |
| How often will the whole project team meet for a general progress and evaluation meeting? |  |
| The Go/No-Go evaluation (approx. 12 months after start) is mandatory for PhDs of various PE&RC partner universities . More details regarding the Go/No-Go evaluation can be found at: [www.pe-rc.nl/go-no-go](http://www.pe-rc.nl/go-no-go). **Has the Go/No-Go procedure, the evaluation criteria, the timeline, and the consequences of a Go or a No-Go been discussed for this project?** | **YES / NO** |

**Go – No-go criteria (SMART)**

|  |
| --- |
| What specific objectives, results, knowledge, and skills need to be acquired at the end of the first year of appointment (SMART) - based on what criteria will the first year Go / No-Go evaluation be carried out?  |

**D2. AGREEMENT ON (CO-) AUTHORSHIP**

*Doing a PhD project involves writing scientific publications. As part of this process, the PhD candidate and the supervisory team will need to discuss who qualifies for co-authorship, and based on which criteria, but also on the ranking of the author list. To aid this process a set of authorship guidelines has been formulated. You are asked* ***to take note of the following guidelines*** *and to indicate whether the team plans to deviate from these guidelines.*

**General advice regarding the publication process**

* Make an agreement about the criteria for first authorship and the ranking of co-authors very early in the research process and also about the required tasks and activities to meet the criteria for author- and co-authorship.
* Decide on authorship and the ranking of the co-authors collectively.
* In case of disagreement or doubts about authorship or ranking of authors, feel free to consult RCO & the Naturalis Scientific Director responsible for Education.

**Authorship and co-authorship**

Starting point should be that all authors of a paper have contributed *substantially* to the paper, have reviewed the final version of the manuscript, approve it for publication, and take public responsibility for the content of the paper.

Someone’s contribution is substantial if he/she contributed to at least two of the following four aspects:

* Problem definition, design of the experiment or research project, planning. This may include acquisition of the project, writing of the project or research proposal, designing the experimental setup.
* Practical execution of the lab or field work. Production of data.
* Analyses and interpretation of the results.
* Writing of the manuscript.

The contribution to two of these four aspects must really have made a difference. This does not necessarily mean that the contribution took much time. Consequently, someone who supplies data can only be a coauthor if he/she also contributes to one of the other three aspects. It may help to be clear about this in an early stage, for instance when you ask someone for data.

99People who contributed to a paper, but whose contribution does not meet the above-mentioned criteria for a co-author should be mentioned in the acknowledgements of a paper. Finally, the author who submits a manuscript for publication accepts the responsibility of having included as co-authors all persons appropriate and none inappropriate. The submitting author should have sent each living co-author a copy of the manuscript and have obtained the co-author’s assent to submit it as such.

**Author Ranking**

* The ‘first author’ is always the person who has made the most important integrating contribution.
* All other authors are ranked in accordance with the general rules or customs of the specific discipline. Authors may be ranked in order of decreasing importance of their integrating contribution, or a special position may be assigned to the 2nd author and last author, unless the editorial board of a scientific journal has determined other rules for author ranking explicitly.
* Keep in mind the tasks and competences of the author in order to balance the importance of their “substantial individual contributions”.

**Team statement on authorship arrangements:**

|  |  |
| --- | --- |
| **Is the project team planning to adhere to the authorship guidelines?** | **YES/NO** |
| *If no, on which aspects is the team planning to deviate from the above-mentioned guidelines?* |

**D3. AGREEMENT AND APPROVAL**

Adjustments with respect to supervision are possible, as it is almost impossible to foresee every development that occurs during the four-year appointment. The agreed plan however, is an essential part of the file of every PhD candidate. Both parties concerned derive rights and obligations from it. Therefore, it is necessary to hand in the form as soon as possible.

**By signing this Training and Supervision Plan, the principal supervisor / promotor declares that a budget of at least € 2.500,- (for the 4-year period) is available to support the training and education activities of the PhD candidate.**

|  |  |  |
| --- | --- | --- |
| PhD candidate | Principal Supervisor / Promotor | Supervisor 2 |
| Name: | Name: | Name: |
| Date: | Date: | Date: |
|  |  |  |
| Supervisor 3 | Supervisor 4 | Head of Research Group |
| Name: | Name: | Name: |
| Date: | Date: | Date: |
|  |  |  |

|  |
| --- |
| Naturalis Scientific Director responsible for Education |
| Name: |
| Date: |
|  |

Signature of approval Head PE&RC PhD Programme:

Dr C. van de Vijver

Date:

**In case you want to become a member of PE&RC, please send a draft version by email to one of the PE&RC PhD Programme Coordinators (****inka.bentum@wur.nl** **or** **claudius.vandevijver@wur.nl****), so that they can check whether all requirements are met.**

**When signed by the PhD candidate, promotor(s), (co-)promotor(s), supervisor(s) and Head of the Research Group, please send a digital scan of the form to Lennart Suselbeek (****inka.bentum@wur.nl****).**

1. This only applies to PhD candidates who defend their thesis at Wageningen University [↑](#footnote-ref-1)
2. - *Promotor:* Full Professor that is leader of the supervisory team

	* *Co-promotor: S*enior scientist who has strong connection with the project (e.g. daily supervisor)
	* *Daily supervisor:* member of the research group who carries out many of the daily supervising activities
	* *Advisor:* scientist who is involved in the project but not on a regular basis [↑](#footnote-ref-2)