



Master in Biology of Organisms and Ecology

Focus Research

Programme mnemonic

MA-BIOR

> Focus *Research* : M-BIORA

Exists also in

> Focus *Erasmus Mundus Joint Master in Tropical Biodiversity and Ecosystems - TROPIMUNDO* : M-BIORB

Studies level

Master 120 credits

Learning language

english and french

Schedule

office hours

Studies category / subcategory

Sciences and technics / Agronomy and bioengineering

Campus

Plaine and Solbosch

Succeed in your studies

Choose

The information and guidance counsellors at the InfOR-études [<https://www.ulb.be/en/studies-info-desk-1>] service will help you choose your studies throughout the year.

Succeed

Take part in preparatory courses [<https://www.ulb.be/en/studies-info-desk-1>] or get help to succeed [<https://www.ulb.be/en/studies-info-desk-1>], before or during your studies.

Get help

Apply for financial aid, look for accommodation or a student job, get support [<https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1>] for your specific needs.

Jury President

Patrick MARDULYN



Jury Secretary



Thomas DROUET DE LA THIBAUDERIE





Bloc 1 | M-BIORA | MA-BIOR

Tronc commun

BING-F4002 [Acquisition et analyse de données](#) | Thomas VERDEBOUT (Coordinator) and Marius GILBERT
5 credits [lecture: 24h, tutorial classes: 36h]  first term  French

BIOL-F446 [Comportement animal](#) | Claire DETRAIN (Coordinator), Serge ARON, Anne-Catherine MAILLEUX, Yves ROISIN and Jean-Christophe de BISEAU D'HAUTEVILLE
15 credits [lecture: 72h, practical work: 48h, seminars: 30h, field trips: 30h]  first term  French

BIOL-F448 [Bioéthique et droit de la conservation](#) | Bruno DANIS (Coordinator) and Martine VERCAUTEREN
5 credits [lecture: 20h, tutorial classes: 40h]  first term  French

An option chosen from (the same in bloc 1 and bloc 2):

M-BIORA-G [Option générale](#) > *page*

M-BIORA-E [Option Biodiversité et environnements tropicaux \(BET\)](#) > *page*

Bloc 2 | M-BIORA | MA-BIOR

Tronc commun

MEMO-F536

Mémoire | Patrick MARDULYN (Coordinator)

🕒 30 credits [mfe/tfe: 360h] 📅 academic year 🗨️ English/French

An option chosen from (the same in bloc 1 and bloc 2) :

M-BIORA-G [Option générale > page](#)

M-BIORA-E [Option Biodiversité et environnements tropicaux \(BET\) > page](#)

Master in Biology of Organisms and Ecology

Options | MA-BIOR

Option générale | M-BIORA-G

Bloc 1

Cours obligatoires

- BIOL-F418 (option) **Projet de mémoire** | Farid DAHDOUH-GUEBAS (Coordinator)
 5 credits [lecture: 18h, project: 24h] 📅 first and second terms 🗨️ French
- BIOL-F449 (option) **Biodiversité et conservation - écosystèmes terrestres et aquatiques** | Pierre Jacques MEERTS (Coordinator), Farid DAHDOUH-GUEBAS, Bruno DANIS, Thomas DROUET DE LA THIBAUDERIE, Philippe DUBOIS, Victoria Moris, Ana Filipa Palmeirim and Anton Van De Putte
 15 credits [lecture: 42h, practical work: 35h, field trips: 103h] 📅 second term 🗨️ French
- BIOL-F450 (option) **Evolution et écologie - comprendre la diversité phénotypique et génétique** | Patrick MARDULYN (Coordinator), Jean-François FLOT, Denis FOURNIER, Olivier HARDY, Nausicaa NORET and Karine VAN DONINCK
 15 credits [lecture: 60h, practical work: 90h] 📅 second term 🗨️ French

Bloc 2

Cours spécifiques à la finalité approfondie : cours optionnels pour se préparer à la carrière professionnelle

Pour une question d'horaire, certains cours ne pourront être choisis conjointement.

30 crédits (M-BIORA-G) ou 25 crédits (M-BIORA-E) de cours à choisir;

outre les cours ci-dessous, l'étudiant peut également choisir parmi les cours d'autres masters ou bacheliers à l'ULB, sous réserve d'approbation par le jury

Cours spécifiques à la finalité

outre les cours ci-dessous, l'étudiant peut également choisir parmi les cours d'autres masters ou bacheliers à l'ULB, sous réserve d'approbation par le jury

A total of 30 credits chosen from the following

- BINF-F402 (option/optional) **Genomics, Transcriptomics and Epigenomics** | Jean-François FLOT (Coordinator) and Matthieu DEFRANCE
 5 credits [lecture: 48h, project: 30h] 📅 first term 🗨️ English
- BING-F4007 (option/optional) **Compléments de biochimie et de microbiologie** | Sigrid FLAHAUT (Coordinator) and Nausicaa NORET
 5 credits [lecture: 48h, practical work: 12h] 📅 second term 🗨️ French
- BING-F410 (option/optional) **Ecosystèmes aquatiques: fonctionnement et paramètres de qualité de l'eau** | Nathalie GYPENS (Coordinator) and Isabelle GEORGE
 5 credits [lecture: 24h, practical work: 36h] 📅 second term 🗨️ French
- BING-Y001 (option/optional) **Tracer Isotope Biochemistry** | Marc ELSKENS (Coordinator) and Steven Goderis
 6 credits [lecture: 24h] 📅 first term 🗨️ English
- BIOL-F1715 (option/optional) **Biological invasions and management** | Iris Stiers (Coordinator)
 3 credits [lecture: 17h, project: 17h] 📅 first term 🗨️ English
- BIOL-F4001 (option/optional) **Behavioural Ecology in natural and man-made environments** | Thomas Parmentier (Coordinator)
 5 credits [lecture: 36h, tutorial classes: 12h] 📅 first term 🗨️ English
- BIOL-F4002 (option/optional) **Pédologie et écosystèmes** | Thomas DROUET DE LA THIBAUDERIE (Coordinator)
 5 credits [lecture: 36h] 📅 first term 🗨️ French

BIOL-F4005 (option/optional)	Social-ecological systems Farid DAHDOUH-GUEBAS (Coordinator) ⌚ 5 credits [lecture: 30h, tutorial classes: 6h, field trips: 12h] 📅 first term 🗨 English
BIOL-F443 (option/optional)	Plant responses to environmental stress Nathalie VERBRUGGEN (Coordinator) ⌚ 5 credits [lecture: 24h, project: 24h] 📅 first term 🗨 English
BIOL-F444 (option/optional)	📅 unknown term
BIOL-F535 (option/optional)	Cours ou stage d'été hors ULB ⌚ 5 credits [practical work: 60h] 📅 third term 🗨 French
BIOL-F539 (option/optional)	Evolution et conservation de la diversité végétale : de la morphologie aux gènes Timothée Le Pechon (Coordinator) ⌚ 5 credits [lecture: 12h, tutorial classes: 18h, practical work: 18h, field trips: 12h] 📅 first term 🗨 French
BIOL-Y001 (option/optional)	Conservation genetics Marc Kochzius (Coordinator) ⌚ 3 credits [lecture: 24h, tutorial classes: 12h] 📅 first term 🗨 English
BIOL-Y400 (option/optional)	Freshwater ecology and management Iris Stiers (Coordinator) ⌚ 6 credits [lecture: 24h, practical work: 12h] 📅 first term 🗨 French Ce cours sera dispensé par l'Université d'Anvers.
SOCA-D443 (option/optional)	Anthropology of Development Omar SULIMAN JABARY (Coordinator) ⌚ 5 credits [lecture: 24h] 📅 first term 🗨 English
SOCA-D4996 (option/optional)	Anthropologie de l'environnement ⌚ 5 credits [lecture: 24h] 📅 first term 🗨 French
STAG-F034 (option/optional)	Stage professionnel Denis FOURNIER (Coordinator) ⌚ 15 credits [work placement: 180h] 📅 academic year 🗨 French
TRAN-F201 (option/optional)	Introduction aux enjeux de la durabilité Wouter ACHTEN (Coordinator), Emilie JEMPA KANKO MUTOMBO, Sabrina PARENT and Martin VAN DAMME ⌚ 5 credits [lecture: 24h, project: 24h] 📅 second term 🗨 French

Option Biodiversité et environnements tropicaux (BET) | M-BIORA-E

Bloc 1

Cours obligatoires

BIOL-F4005 (option)	Social-ecological systems Farid DAHDOUH-GUEBAS (Coordinator) ⌚ 5 credits [lecture: 30h, tutorial classes: 6h, field trips: 12h] 📅 first term 🗨 English
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An alternative chosen from the four following

Universiti Malaysia Terengganu

Module à suivre durant le deuxième quadrimestre

BIOL-Y114 (option/optional)	Tropical biodiversity and ecosystems field school: Malaysian mangrove ecosystems ⌚ 15 credits [lecture: 20h, tutorial classes: 18h, field trips: 128h, project: 32h] 📅 second term 🗨 English
BIOL-Y115 (option/optional)	Remote Sensing and GIS ⌚ 3 credits [lecture: 21h, tutorial classes: 33h, field trips: 24h, project: 6h] 📅 second term 🗨 English
BIOL-Y117 (option/optional)	Estuarine and Mangrove Ecology ⌚ 6 credits [lecture: 28h, tutorial classes: 12h, field trips: 24h, project: 6h] 📅 second term 🗨 English
BIOL-Y118 (option/optional)	Conservation of Marine Endangered Species ⌚ 3 credits [lecture: 24h, tutorial classes: 4h, field trips: 36h, project: 6h] 📅 second term 🗨 English

A total of three credits chosen from the following



BIOL-Y116 (option/optional) **Tropical oceanography**
⌚ 3 credits [lecture: 24h, tutorial classes: 4h, field trips: 24h, project: 18h] 📅 second term 🗨 English

BIOL-Y223 (option/optional) **Lake and terrestrial ECOLOGY**
⌚ 3 credits [lecture: 24h, tutorial classes: 4h, field trips: 24h, project: 18h] 📅 second term 🗨 French

or

University of Ruhuna

Module à suivre durant le deuxième quadrimestre

BIOL-Y174 (option) **Geomatics**
⌚ 3 credits [lecture: 21h, tutorial classes: 33h, field trips: 24h, project: 6h] 📅 second term 🗨 English

BIOL-Y184 (option) **Tropical biodiversity and ecosystems field school: Sri Lankan terrestrial and aquatic ecosystems**
⌚ 15 credits [lecture: 21h, tutorial classes: 7h, field trips: 336h, project: 84h] 📅 second term 🗨 English

Un total de 12 crédits à choisir parmi

A total of 12 credits chosen from the following

BIOL-Y214 (option/optional) **Biodiversity of wetlands in Sri Lanka, conservation and policies**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y215 (option/optional) **Wood science and technology**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y216 (option/optional) **Ecotoxicology and Environmental science**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y217 (option/optional) **Coastal zone management**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y218 (option/optional) **Plant physiology, biochemistry and plant breeding techniques**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y219 (option/optional) **Indigenous knowledge on plant science**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y220 (option/optional) **Forest ecology and management**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y221 (option/optional) **Microbial ecology**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

BIOL-Y222 (option/optional) **Ecology of tropical marine systems**
⌚ 3 credits [lecture: 12h] 📅 second term 🗨 French

or

Université de Dschang - Cameroun

Module à suivre durant le 2e quadrimestre

BIOL-Y059 (option) **SIG et Phytogéographie**
⌚ 5 credits [lecture: 24h, tutorial classes: 10h, practical work: 25h] 📅 second term 🗨 French

BIOL-Y241 (option) **Elaboration de Projet d'école de terrain**
⌚ 3 credits 📅 second term 🗨 French



BIOL-Y242 **Mise en œuvre de Projet d'école de terrain**
(option) 6 credits second term French

BIOL-Y243 **Rapport d'Ecole de terrain**
(option) 6 credits second term French

Un total de 10 crédits à choisir parmi

A total of ten credits chosen from the following

BIOL-Y022 **Systématique et phylogénie**
(option/optional) 5 credits [lecture: 30h, practical work: 20h] academic year French

BIOL-Y027 **Écosystèmes terrestres**
(option/optional) 5 credits [lecture: 20h, tutorial classes: 10h, practical work: 15h] academic year French

BIOL-Y028 **Ecosystèmes aquatiques**
(option/optional) 5 credits [lecture: 30h, practical work: 15h] academic year French

BIOL-Y034 **Ethnobotanique**
(option/optional) 5 credits [lecture: 20h, practical work: 20h] academic year French

or

Université Cheikh Anta Diop de Dakar - Senegal

Module à suivre durant le deuxième quadrimestre

BIOL-Y413 **Tropical biodiversity and ecosystems field school: West-African forest, savanna, wetland and other S**
(option) 15 credits [field trips: 180h] second term French

BIOL-Y414 **GIS and web mapping**
(option) 3 credits [lecture: 10h, tutorial classes: 10h, practical work: 35h, field trips: 10h, project: 5h] second term English

Un total de 12 crédits à choisir parmi

A total of 12 credits chosen from the following

BIOL-Y415 **Biodiversité ichtyologique**
(option/optional) 3 credits [lecture: 10h, tutorial classes: 10h, practical work: 35h, field trips: 10h, project: 5h] second term French

BIOL-Y416 **Biodiversity conservation : issues, challenges and assessment methods**
(option/optional) 3 credits [lecture: 30h, tutorial classes: 20h, seminars: 8h, project: 7h] second term English

BIOL-Y417 **Biologie et Écologie des poissons d'eau douce Africains**
(option/optional) 3 credits [lecture: 20h, tutorial classes: 10h, practical work: 30h, field trips: 12h] second term French

BIOL-Y418 **Biostatistique**
(option/optional) 3 credits [lecture: 15h, tutorial classes: 20h] second term French

BIOL-Y419 **In vitro culture and cryopreservation at the service of biodiversity**
(option/optional) 3 credits [lecture: 30h, tutorial classes: 10h, practical work: 20h] second term English

BIOL-Y420 **Initiation à l'éthnobotanique quantitative**
(option/optional) 3 credits [lecture: 20h, tutorial classes: 20h, practical work: 25h] second term French

BIOL-Y421 **Biodiversité et fonctions des Insectes dans les écosystèmes tropicaux**
(option/optional) 3 credits [lecture: 10h, tutorial classes: 20h, practical work: 24h] second term French

Bloc 2

Cours obligatoires de l'option

BIOL-F418 **Projet de mémoire** | Farid DAHDOUH-GUEBAS (Coordinator)
(option) 5 credits [lecture: 18h, project: 24h] 📅 first and second terms 🗨 French

Cours spécifiques à la finalité approfondie : cours optionnels pour se préparer à la carrière professionnelle

Pour une question d'horaire, certains cours ne pourront être choisis conjointement.

30 crédits (M-BIORA-G) ou 25 crédits (M-BIORA-E) de cours à choisir;

outre les cours ci-dessous, l'étudiant peut également choisir parmi les cours d'autres masters ou bacheliers à l'ULB, sous réserve d'approbation par le jury

Cours spécifiques à la finalité

outre les cours ci-dessous, l'étudiant peut également choisir parmi les cours d'autres masters ou bacheliers à l'ULB, sous réserve d'approbation par le jury

A total of 25 credits chosen from the following

BINF-F402 **Genomics, Transcriptomics and Epigenomics** | Jean-François FLOT (Coordinator) and Matthieu DEFRANCE
(option/optional) 5 credits [lecture: 48h, project: 30h] 📅 first term 🗨 English

BING-F4007 **Compléments de biochimie et de microbiologie** | Sigrid FLAHAUT (Coordinator) and Nausicaa NORET
(option/optional) 5 credits [lecture: 48h, practical work: 12h] 📅 second term 🗨 French

BING-F410 **Ecosystèmes aquatiques: fonctionnement et paramètres de qualité de l'eau** | Nathalie GYPENS (Coordinator) and Isabelle GEORGE
(option/optional) 5 credits [lecture: 24h, practical work: 36h] 📅 second term 🗨 French

BING-Y001 **Tracer Isotope Biochemistry** | Marc ELSKENS (Coordinator) and Steven Goderis
(option/optional) 6 credits [lecture: 24h] 📅 first term 🗨 English

BIOL-F1715 **Biological invasions and management** | Iris Stiers (Coordinator)
(option/optional) 3 credits [lecture: 17h, project: 17h] 📅 first term 🗨 English

BIOL-F4001 **Behavioural Ecology in natural and man-made environments** | Thomas Parmentier (Coordinator)
(option/optional) 5 credits [lecture: 36h, tutorial classes: 12h] 📅 first term 🗨 English

BIOL-F4002 **Pédologie et écosystèmes** | Thomas DROUET DE LA THIBAUDERIE (Coordinator)
(option/optional) 5 credits [lecture: 36h] 📅 first term 🗨 French

BIOL-F4005 **Social-ecological systems** | Farid DAHDOUH-GUEBAS (Coordinator)
(option/optional) 5 credits [lecture: 30h, tutorial classes: 6h, field trips: 12h] 📅 first term 🗨 English

BIOL-F443 **Plant responses to environmental stress** | Nathalie VERBRUGGEN (Coordinator)
(option/optional) 5 credits [lecture: 24h, project: 24h] 📅 first term 🗨 English

BIOL-F444
(option/optional) 📅 unknown term

BIOL-F535 **Cours ou stage d'été hors ULB**
(option/optional) 5 credits [practical work: 60h] 📅 third term 🗨 French

BIOL-F539 **Evolution et conservation de la diversité végétale : de la morphologie aux gènes** | Timothée Le Pechon (Coordinator)
(option/optional) 5 credits [lecture: 12h, tutorial classes: 18h, practical work: 18h, field trips: 12h] 📅 first term 🗨 French

BIOL-Y001 **Conservation genetics** | Marc Kochzius (Coordinator)
(option/optional) 3 credits [lecture: 24h, tutorial classes: 12h] 📅 first term 🗨 English

BIOL-Y400 **Freshwater ecology and management** | Iris Stiers (Coordinator)
(option/optional) 6 credits [lecture: 24h, practical work: 12h] 📅 first term 🗨 French

Ce cours sera dispensé par l'Université d'Anvers.

SOCA-D443
(option/optional)

Anthropology of Development | Omar SULIMAN JABARY (Coordinator)

5 credits [lecture: 24h] first term English

SOCA-D4996
(option/optional)

Anthropologie de l'environnement

5 credits [lecture: 24h] first term French

STAG-F034
(option/optional)

Stage professionnel | Denis FOURNIER (Coordinator)

15 credits [work placement: 180h] academic year French

TRAN-F201
(option/optional)

Introduction aux enjeux de la durabilité | Wouter ACHTEN (Coordinator), Emilie JEMPA KANKO MUTOMBO, Sabrina PARENT and Martin VAN DAMME

5 credits [lecture: 24h, project: 24h] second term French

