

Master in Biology of Organisms and Ecology

Focus Research

MA-BIOR | M-BIORA | 2023-2024

Bloc 1 | M-BIORA | MA-BIOR

Tronc commun

- BING-F4002 [Acquisition et analyse de données](#) | Marius GILBERT (Coordinator), Marc DUFRENE and Simon Dellicour
🕒 5 credits [lecture: 24h, tutorial classes: 36h] 📅 first term 🗨️ French
- BIOL-F446 [Comportement animal](#) | Claire DETRAIN (Coordinator), Serge ARON, Jean-Christophe DE BISEAU D'HAUTEVILLE and Yves ROISIN
🕒 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), Sonia VANDERHOEVEN 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 | Yves ROISIN (Coordinator)

🕒 30 credits [mfe/tfe: 360h] 📅 first and second terms

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: 16h, project: 24h] 📅 first and second terms 🗨️ French
- BIOL-F449** (option) **Biodiversité et conservation - écosystèmes terrestres et aquatiques** | Bruno DANIS (Coordinator), Farid DAHDOUH-GUEBAS, Thomas DROUET DE LA THIBAUDERIE, Philippe DUBOIS, Pierre Jacques MEERTS 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, Karine VAN DONINCK and Martine VERCAUTEREN
 15 credits [lecture: 60h, practical work: 120h] 📅 second term 🗨️ French

Bloc 2

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

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-F535** (option/optional) **Séminaires d'analyse de données** | Marius GILBERT (Coordinator) and Simon Dellicour
 5 credits [tutorial classes: 12h, project: 48h] 📅 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: 16h, practical work: 6h, project: 6h] 📅 first term 🗨️ English
- BIOL-F4001** (option/optional) **Behavioural Ecology in natural and man-made environments** | Claire DETRAIN (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-F412 (option/optional)	Biotechnologies animales et végétales Nathalie VERBRUGGEN (Coordinator) and Benoît VANHOLLEBEKE ⌚ 5 credits [lecture: 36h, project: 24h] 📅 second term 🗨️ French
BIOL-F441 (option/optional)	Ecotoxicologie Philippe DUBOIS (Coordinator) ⌚ 5 credits [lecture: 18h] 📅 second term 🗨️ French
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)	Plant-soil interactions Pierre Jacques MEERTS (Coordinator) ⌚ 5 credits [lecture: 24h, tutorial classes: 12h] 📅 first term 🗨️ English
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), Mario AMALFI, Damien ERTZ and Fabienne VAN ROSSUM ⌚ 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)	📅 unknown term
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) and Chiara ARMENI ⌚ 5 credits [lecture: 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 three following

Proposition 1 - 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
BIOL-Y241 (option)	Elaboration de Projet d'école de terrain ⌚ 3 credits 📅 second term 🗨️ French
BIOL-Y242 (option)	Mise en œuvre de Projet d'école de terrain ⌚ 6 credits 📅 second term 🗨️ French
BIOL-Y243 (option)	Rapport d'École de terrain ⌚ 6 credits 📅 second term 🗨️ French

Un total de 10 crédits à choisir parmi

A total of ten credits chosen from the following



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

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

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

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

or

Proposition 2 - module à suivre durant le deuxième quadrimestre

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

BIOL-Y184 (option/optional) **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

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

Proposition 3 - 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



BIOL-Y115 (option/optional) **Remote Sensing and GIS**
3 credits [lecture: 21h, tutorial classes: 33h, field trips: 24h, project: 6h] second term

BIOL-Y117 (option/optional) **Estuarine and Mangrove Ecology**
6 credits [lecture: 28h, tutorial classes: 12h, field trips: 24h, project: 6h] second term

BIOL-Y118 (option/optional) **Conservation of Marine Endangered Species**
3 credits [lecture: 24h, tutorial classes: 4h, field trips: 36h, project: 6h] second term

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

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

Bloc 2

Cours obligatoires de l'option

BIOL-F418 (option) **Projet de mémoire** | Farid DAHDOUH-GUEBAS (Coordinator)
5 credits [lecture: 16h, project: 24h] first and second terms French

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

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

25 to 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-F535 (option/optional) **Séminaires d'analyse de données** | Marius GILBERT (Coordinator) and Simon Dellicour
5 credits [tutorial classes: 12h, project: 48h] 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: 16h, practical work: 6h, project: 6h] first term English

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

BIOL-F4002 <small>(option/optional)</small>	Pédologie et écosystèmes Thomas DROUET DE LA THIBAUDERIE (Coordinator) ⌚ 5 credits [lecture: 36h] 📅 first term 🗨️ French
BIOL-F4005 <small>(option/optional)</small>	Social-ecological systems Farid DAHDOUH-GUEBAS (Coordinator) ⌚ 5 credits [lecture: 30h, tutorial classes: 6h, field trips: 12h] 📅 first term 🗨️ English
BIOL-F412 <small>(option/optional)</small>	Biotechnologies animales et végétales Nathalie VERBRUGGEN (Coordinator) and Benoît VANHOLLEBEKE ⌚ 5 credits [lecture: 36h, project: 24h] 📅 second term 🗨️ French
BIOL-F441 <small>(option/optional)</small>	Ecotoxicologie Philippe DUBOIS (Coordinator) ⌚ 5 credits [lecture: 18h] 📅 second term 🗨️ French
BIOL-F443 <small>(option/optional)</small>	Plant responses to environmental stress Nathalie VERBRUGGEN (Coordinator) ⌚ 5 credits [lecture: 24h, project: 24h] 📅 first term 🗨️ English
BIOL-F444 <small>(option/optional)</small>	Plant-soil interactions Pierre Jacques MEERTS (Coordinator) ⌚ 5 credits [lecture: 24h, tutorial classes: 12h] 📅 first term 🗨️ English
BIOL-F535 <small>(option/optional)</small>	Cours ou stage d'été hors ULB ⌚ 5 credits [practical work: 60h] 📅 third term 🗨️ French
BIOL-F539 <small>(option/optional)</small>	Evolution et conservation de la diversité végétale : de la morphologie aux gènes Timothée Le Pechon (Coordinator), Mario AMALFI, Damien ERTZ and Fabienne VAN ROSSUM ⌚ 5 credits [lecture: 12h, tutorial classes: 18h, practical work: 18h, field trips: 12h] 📅 first term 🗨️ French
BIOL-Y001 <small>(option/optional)</small>	Conservation genetics Marc KOCHZIUS (Coordinator) ⌚ 3 credits [lecture: 24h, tutorial classes: 12h] 📅 first term 🗨️ English
BIOL-Y400 <small>(option/optional)</small>	Freshwater ecology Iris Stiers (Coordinator) ⌚ 6 credits [lecture: 24h, practical work: 12h] 📅 first term 🗨️ English Ce cours sera dispensé par l'Université d'Anvers.
STAG-F034 <small>(option/optional)</small>	Stage professionnel Denis FOURNIER (Coordinator) ⌚ 15 credits [work placement: 180h] 📅 academic year 🗨️ French
TRAN-F201 <small>(option/optional)</small>	Introduction aux enjeux de la durabilité Wouter ACHTEN (Coordinator) and Chiara ARMENI ⌚ 5 credits [lecture: 24h] 📅 second term 🗨️ French

