

# IUCN SSC Chytrid, Zygomycete, Downy Mildew, Slime Mould Specialist Group

2019 Report



Mayra Camino



Tetiana Kryvomaz

## Co-Chairs

Mayra Camino Vilaró (1)  
Tetiana Kryvomaz (2)

## Red List Authority Coordinator

Mayra Camino Vilaró (1)

## Location/Affiliation

(1) National Botanic Garden, University of Havana, Havana, Cuba  
(2) Kyiv National Construction and Architecture University, Ecology Department, Kyiv, Ukraine

## Number of members

25

## Social networks

Facebook:  
Slime Mold Identification & Appreciation  
Website:  
[www.cybertruffle.org.uk/moulds/index.htm](http://www.cybertruffle.org.uk/moulds/index.htm)



## Mission statement

The mission of our IUCN Specialist Group is to promote the conservation of chytrids, downy mildews, myxomycetes and zygomycetes.

## Projected impact for the 2017-2020 quadrennium

By the end of 2020, we envision a substantial advance in understanding extinction risks for certain ecological groups of myxomycetes (slime moulds), chytrid, zygomycete, downy mildew and particular species. One of the most important aspects of evaluating possible impacts of climate change and anthropogenic influence is to demonstrate that changes are occurring in the distribution of particular species. In future research, at least two possible effects of climate change and other negative impacts should be clearly distinguished. First, the negative impacts on composition of species assemblages, which does not necessarily threaten particular species, must be assessed. Second, the negative impacts on a single species, which may well be threatened and thus would warrant inclusion on Red Lists, needs to be evaluated. In addition, promotion of conservation activities for neglected groups of living organisms will provide a more comprehensive vision of how nature processes function; in particular, attention needs to be focused on discovering the role of chytrids, zygomycetes, downy mildews, and myxomycetes in people's lives and their relationships with other species. Furthermore, the conservation action network of experts and amateurs will expand.

## Targets for the 2017-2020 quadrennium

### Assess

Red List: complete assessment of 100 species of myxomycetes (slime moulds).

Research activities: (1) study climate change impacts on myxomycetes, chytrid, zygomycete, downy mildew; (2) analyse population trends, threats, and assess species using the IUCN Red List criteria and determine conservation actions for chytrids, zygomycetes, downy mildews, and slime moulds.

### Plan

Policy: promote the conservation of different groups of living organisms that were not considered to be in danger before, but are in need of protection today.

### Network

Capacity building: train professionals on how to carry out Red List assessments.

Synergy: organise a network of specialists and stakeholders for discussing conservation problems for "lower fungi" and for exchange of successful protection measures.

### Communicate

Communication: advance conservation activity for chytrids, zygomycetes, downy mildews and slime moulds.

*Cribraria argillacea*, French Alps  
Photo: Alain Michaud



*Arcyria cinerea*, mangrove, Guadeloupe  
Photo: Alain Michaud

Below  
*Stemonitis pallida*, Guadeloupe  
Photo: Alain Michaud



*Perichaena depressa*, Ukraine  
Photo: Alain Michaud

## Activities and results 2019

### Assess

#### Red List

i. For 10 myxomycete species, all information for Red List assessment was prepared and published in Description Sheets (CABI). (KSR #1)

#### Research activities

ii. Ten description sheets were published in the UK about myxomycete species which have the ability for heavy metal accumulation; one article was published in France about nivicolous species, which were evaluated as sensitive to climate change impact; three publications were produced in Cuba, including a guide for a botanic garden, which contains conservation aspects. (KSR #43)

ii. A population survey with analysis of population trends, threats, and assessment of species using the IUCN Red List criteria and determination of conservation actions for chytrids, zygomycetes, downy mildews, and slime moulds was completed in English, Spanish and Ukrainian. (KSR #12)

### Plan

#### Policy

i. We produced a policy brief to promote the conservation of myxomycetes and other groups of living organisms that were not considered to be in danger before, but are in need of protection today. (KSR #2)

### Network

#### Capacity building

i. Presentations about Red List assessments were made in Cuba, France and Ukraine. (KSR #5)

### Synergy

i. A collaborative system continues globally, with branches established in France, activation developing in Latin America, and starting in Malaysia. (KSR #29)

### Communicate

#### Communication

i. The International Congress on the Systematics and Ecology of Myxomycetes (ICSEM10) was held in Costa Rica with around 50 participants; International Days for the Search and Study of Nivicolous Species of Myxomycetes organised in France with around 70 participants; expeditions carried out in Guadalupe, France, Cuba, Ukraine, and the UK. (KSR #28)

### Acknowledgements

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### Summary of activities 2019

Components of Species Conservation Cycle: 4/5

Assess	3	
Plan	1	
Network	2	
Communicate	1	

Main KSRs addressed: 1, 2, 5, 12, 28, 29, 43

KSR: Key Species Result