



WETLAND WORLDS

(2025 AND ONGOING)

EXHIBITIONS

Discover Wetland Worlds –Water Stories: the exhibition format . Here the public and participants from the workshops can be involved in biodiversity issues through interactive media art and discussions

WHAT IS WETLAND WORLDS?

WETLAND WORLDS is a ground-breaking collaboration for biodiversity between artists, biotechnologists and hydrologists. The project is driven by new monitoring or communication developments in technology, biology and media art and it explores how innovative technology can foster unique transdisciplinary environmental exchange and develop art education within the “citizen science” experience.

Wetland Stories is divided into two parts: ❶ Workshops and ❷ Interactive Exhibitions with Art-Science Talks. The information from the workshop feeds directly into the exhibition format. They learn to use and share methods and technologies to not only understand biodiversity but also to collect actual scientific data. We hope to empower citizens to contribute to scientific knowledge and brainstorm about possible ways to help wetland ecosystems survive. Currently, scientific researchers need the data collected by citizen scientists to assess the loss of biodiversity on a world-wide level.

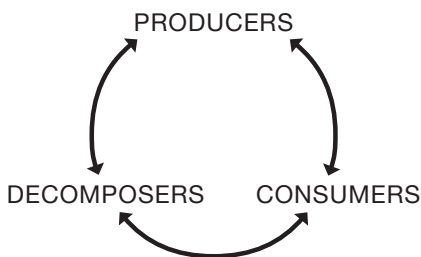
Artistic interpretation and communication skills add a novel approach with the aim to raise the participants’ awareness of our human impact and meet like-minded people for further collaborations on sustainability. The talks are for artists and scientists to meet and compare research with the aim to work with communities for protection and rewilding.

Wetland Stories in 2025 is a starting point, and we aim to use the experiences to create a structure that can be repeated as workshops in other wetland environments and with a related exhibition in museums or art centers.



WHY WETLAND BIODIVERSITY?

Wetlands are currently one of the most fragile environments on the planet today. Here the dialogues between the species in both the water and the soil creates a precious and vulnerable source for interdependent life. When we ask a wetland pond and its banks, 'Who lives here?' a dense chorus responds – from dragonflies, fish, worms' frogs, microbes and many other species. Over the last 10 years, one in eight of these species has already vanished! Saving wetland biodiversity is crucial. Wetlands not only support 40% of all plant and animal species, but they also act as natural, high-efficiency carbon sinks to hold 30% of land-based carbon. They purify water, protect against floods/storms and act as shock absorbers against floods. Even though, they only cover 4-6% of Earth's land, they are vital, high-nutrient breeding, nesting, and feeding grounds for thousands of freshwater and soil species. But wetlands matter to people, too. They filter and purify polluted water, and they provide food and livelihoods. They can also help us to mitigate climate change and adapt and build resilience to extreme weather events. The decline of biodiversity in wetlands is a critical indicator of the broader destruction of fresh aquatic ecosystems, which are disappearing three times faster than forests.



PRODUCERS		CONSUMERS			DECOMPOSERS
Algae	Hydrophytic Plants	Primary Protozoa	Secondary Insects Larvae	Tertiary Fishes Sharks	Bacteria
		Crustacea			Fungi
					Microbes



WORRIED WINGS (2025) ABOVE: POND ECOSYSTEMS
BELOW: 4 FEMALE DRAGON FLIES, CURRENTLY UNDER RISK OF EXTINCTION:

WETLAND WORLDS: EXHIBITIONS

These exhibitions included **The Biodiversity Workbench** and **Worried Wings** by Jill Scott, as well as the micro-display **The Moist Soil Microtour** by Dorothea Rust. Two **LaserTalks** on soil and water, presented by artists and scientists, accompanied the exhibitions.

WETLAND WORLDS took place in 2025 at:

- Papiliorama Science Center, Kerzers in the exhibition: Water Stories
- Machine 17, Cham (Zug) in the exhibition: FUTURE water - FUTURE soil

THE BIODIVERSITY WORKBENCH

Artist: Jill Scott

The Biodiversity Workbench is an interactive installation exploring water biodiversity in wetland ecosystems. Materials collected and identified during workshops are displayed in Petri dishes. These dishes, labeled with Latin species names, function as interfaces for identification and categorization across three main ecosystem roles.

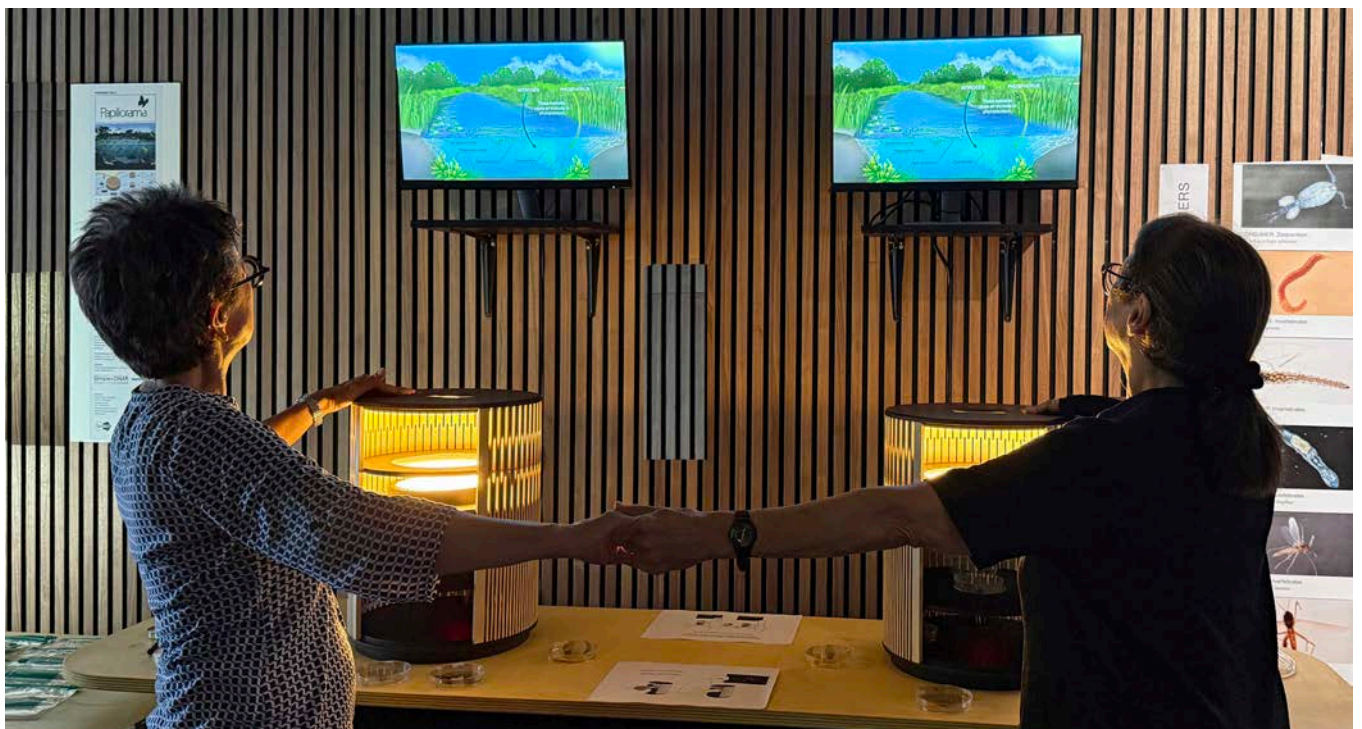
Through this installation, the interdependent cycles of biodiversity are revealed. Specimens can be explored on two interactive terminals using magnification, while screens may be examined individually. Over time, ecological categories emerge, such as **Producers**, **Consumers**, and **Decomposers**.

The installation also poses a critical question: Where do humans stand?

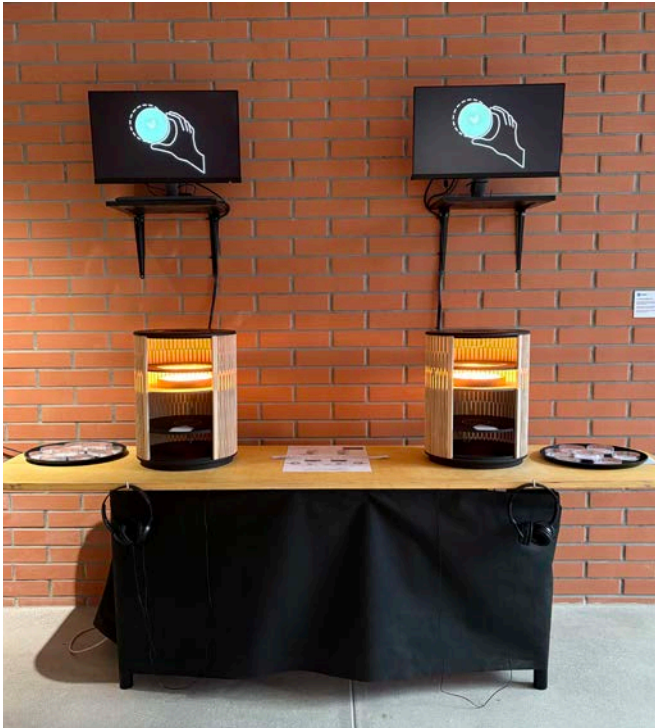
When viewers join hands, the water in their bodies closes an electronic circuit, triggering films on the screens. These films reveal major human impacts on wetland environments, including pollution, fertilizers, and pesticides. Media art is thus used to visualize the relationship between biodiversity and human-driven species extinction.



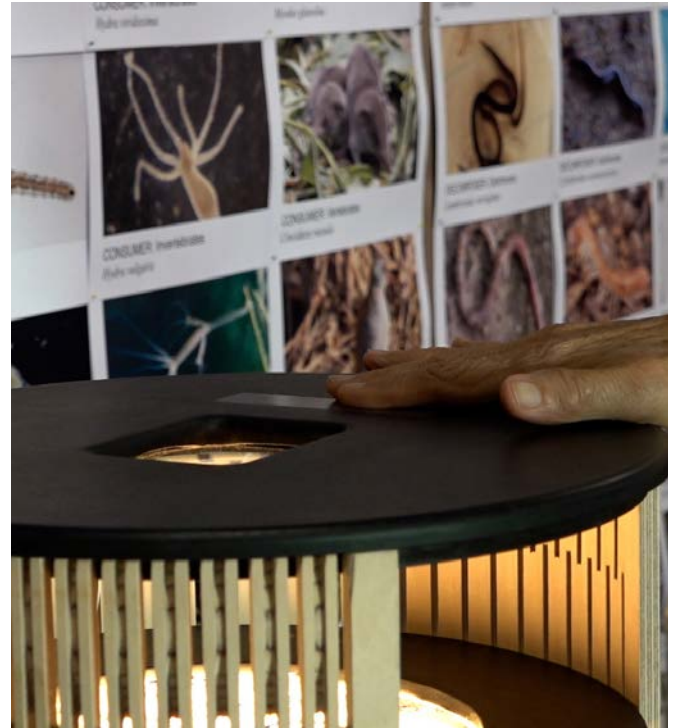
PETRIDISHES AS USER INTERFACES



THE BIODIVERSITY WORKBENCH (2025): VIEWERS JOIN HANDS TO TRIGGER METAPHORS ABOUT HUMAN IMPACT ON WETLANDS



INSTALLATION VIEW: THE BIODIVERSITY WORKBENCH



CLOSE UP OF THE TRIGGER PAD FOR JOINT INTERACTION



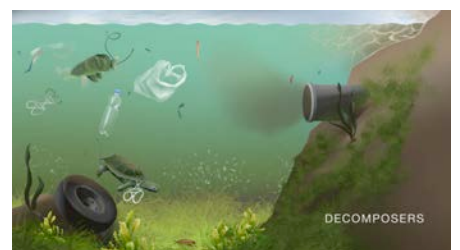
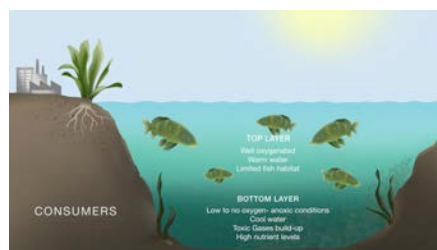
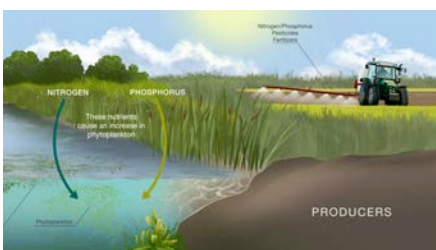
SAMPLES FROM THE BIODIVERSITY CATEGORIZATION



CONSUMERS



DECOMPOSERS



HUMAN IMPACTS ON WETLANDS: MONOCULTURE (PESTICIDES/FERTILIZERS) CLIMATE CHANGE (WARMER WATER) AND MICROPLASTICS

WORRIED WINGS

Artist: Jill Scott

Worried Wings focuses on a specific extinction scenario within wetland ecosystems. More than 25% of all wetland plant and animal species are currently at risk of extinction. According to the IUCN Red List, 16% of the world's 6,016 known dragonfly and damselfly species are threatened. Beyond these visible species, thousands of moist-living microorganisms – largely invisible to the human eye – are also affected. This installation highlights the plight of four dragonfly species from Asia, Africa, Europe, and the USA. Created in collaboration with young artists and designers who also documented the workshops, four 3D-printed female dragonflies float in a water basin positioned in front of a large screen. The basin is divided into a healthy and an unhealthy side. When visitors place the dragonflies on the healthy side, they discover how each species depends on a safe and balanced environment. When placed on the unhealthy side, the effects of human activities – such as pollution, microplastics, and habitat loss – become visible, demonstrating how water and soil quality decline and how dragonfly nymphs are endangered. The extinction of dragonflies represents a growing global crisis, driven primarily by the rapid loss of wetland breeding habitats.



WORRIED WINGS: MIXED REALITY INSTALLATION POND - HEALTHY AND UNHEALTHY SIDES -FOUR 3 D PRINTED DRAGONFLIES






Aeshna cyanea

SPECIES: hawker dragonfly, Europa.
SPEZIES: Höckerlibelle, Europa.

What is our impact on this dragonfly?
Was ist unsere Auswirkung auf diese Libelle?



Calopteryx virgo

SPECIES: damselfly, Africa.
SPEZIES: Kleinlibelle, Afrika.

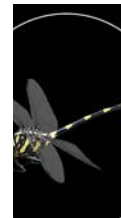
What is our impact on this dragonfly?
Was ist unsere Auswirkung auf diese Libelle?



Diplacodes trivialis

SPECIES: dragonfly, South East Asia.
SPEZIES: Libelle, Südostasien.


What is our impact on this dragonfly?
Was ist unsere Auswirkung auf diese Libelle?




Ictinogomphus rapax

SPECIES: dragonfly, India.
SPEZIES: Libelle, Indien.


What is our impact on this dragonfly?
Was ist unsere Auswirkung auf diese Libelle?




HOST PLANT: *Ranunculus fluitans*




STATUS: On the verge of extinction. Affected by MICROPLASTICS.
STATUS: Am Rande des Aussterbens. Beeinträchtigt durch MIKROPLASTIK.




HOST PLANT: *Ranunculus*



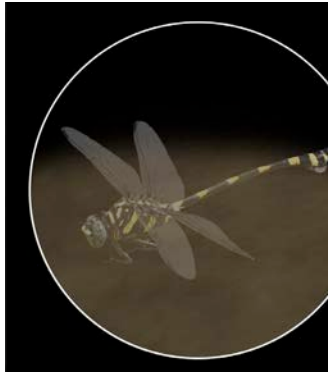
STATUS: Becoming extinct: because their ponds are subject to FLOODING from climate change and polluted sludgy water.
STATUS: Vom Aussterben bedroht, weil ihre Teiche durch den Klimawandel und verschmutztes Schlammwasser ÜBERFLUTET werden.




HOST PLANT: *Oryza sativa*



STATUS: Dying from PESTICIDES and FERTILIZERS on the water surface.
STATUS: Sterben durch Schädlingsbekämpfungsmittel und FERTILIZER auf der Wasseroberfläche.



HOST PLANT: Bare twig



STATUS: Becoming extinct. Affected by INDUSTRIAL POLLUTION.
STATUS: Vom Aussterben bedroht. Beeinträchtigt durch INDUSTRIELLE VERSCHMUTZUNG.

HUMAN IMPACTS OF DRAGONFLIES (UNHEALTHY ENVIRONMENTS)
MICROPLASTICS, CLIMATE CHANGE (FLOODING), PESTICIDES AND FERTILIZERS, INDUSTRIAL POLLUTION



Aeshna cyanea

HABITAT: Forest Pond
PREFERENCES: new water, small shaded habitats.
NYMPHS: 3 years - eat aquatic insects, tadpoles and small fish.

HABITAT: Waldteich
PRÄFERENZEN: Neue Gewässer, kleine schattige Lebensräume.
NYMPHS: 3 Jahre - frisst Wasserinsekten, Kaulquappen und kleine Fische.



Diplacodes trivialis

HABITAT: Rice Field Pond
PREFERENCES: wet rice fields, shallow lakes, drainage ditches.
NYMPHS: 1.5 years - eat small mosquito larva or other insects.

HABITAT: Reisfeld-Teich
PRÄFERENZEN: feuchte Reisfelder, flache Seen, Entwässerungsgräben.
NYMPHS: 1,5 Jahre - frisst kleine Mückenlarven oder andere Insekten.



Calopteryx virgo

HABITAT: Urban Pond
PREFERENCES: fast-flowing waters in forests. Oxygen in the water.
NYMPHS: 2 Years - feed on small insects between submerged plants.

HABITAT: Stadtweiher
PRÄFERENZEN: Schnell fließende Gewässer in Wäldern, Sauerstoff im Wasser.
NYMPHS: 2 Jahre - ernährt sich von kleinen Insekten zwischen untergetauchten Pflanzen.



Ictinogomphus rapax

HABITAT: Dune Pond
PREFERENCES: still freshwater, ponds, lagoons sand dune pools. Occur in sluggish water areas like river ponds, riverine lagoons, and isolated ponds.
NYMPHS: 2 years - lives in mud and sand. Eat insects.

HABITAT: Dünen-Teich
PRÄFERENZEN: Stilles Süßwasser, Teiche, Lagunen, Sanddünenbecken. Kommt in Gebieten mit tragem Wasser wie Flusstümpeln, Lagunen am Fluss und isolierten Teichen vor.
NYMPHS: 2 Jahre - lebt in Schlamm und Sand. Frisst Insekten.

HABITAT OF DRAGON FLIES (HEALTHY ENVIRONMENTS)



ANIMATION: METAMORPHOSIS

THE MOIST SOIL MICROTOUR

Artist: Dorothea Rust

In **The Moist Soil Microtour**, visitors observe specimens collected during citizen science workshops and from surrounding wetlands using two microscopes, accompanied by images and explanations. This installation offers first-hand experiences of biodiversity at the microscale.

Visitors are invited to share the scientists' enthusiasm, identify species, and exchange knowledge about biodiversity and soil ecosystems.



THE RESULTS FROM THE WORKSHOPS ARE DISPLAYED IN THE EXHIBITION SPACE- SOUNDS ON A MONITOR AND SPECIMENS UNDER A MICROSCOPE WORKSHOP PARTICIPANTS ARE ENCOURAGED TO CONTRIBUTE.



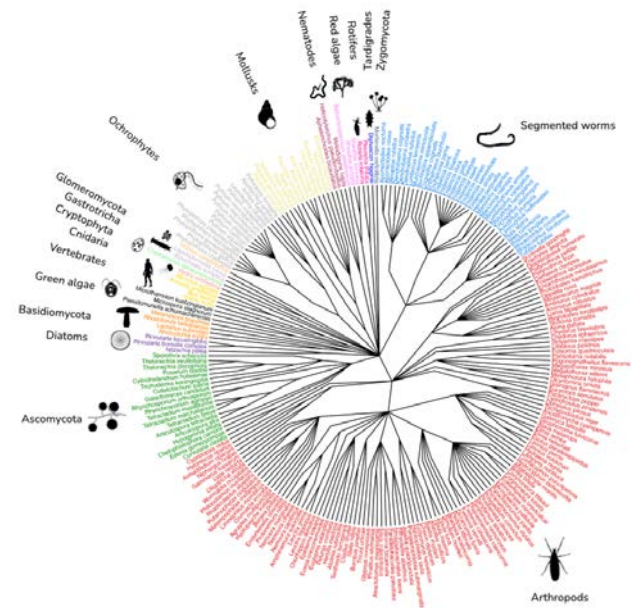
VISITORS OBSERVE AND LISTEN TO SOIL SAMPLES FROM CITIZEN SCIENCE FIELD TRIPS: HANDS-ON BIODIVERSITY

IMAGE DISPLAY OF eDNA SAMPLE RESULTS

The results from the workshops **Biodiversity Lives Here** are displayed in the exhibition space after being collected by the artists and citizen scientists. The samples were analysed by Simplex eDNA, Winterthur. After the species are identified, they are added to a worldwide map of biodiversity loss in soil and water.



OBSERVING PONDS



SYRINGE FOR THE COLLECTION OF WATER SAMPLES

TREE OF LIFE FROM 2 WATER SAMPLES



MAPS FROM FIELD TRIP HIKES IN WETLANDS: ZUGGERBERG AND AURIÉD LAUPEN

ART SCIENCE LASER TALKS

WETLAND WORLDS incorporates art-science LASER talks (Leonardo Art and Science Event Rendezvous) into the exhibition venues, see www.laserzurich.com. These aim to encourage education and each is followed by a discussion about community action in German and in English. What can we do as a community to save Wetland Destruction?

LASER TALK 1: "BIODIVERSITY, WATER AND US"

Speakers:

Hydrologist: Prof. Jan Seibert, University of Zurich

Designer: Eliane Zihlmann – Somebodyelse, GmbH

Scientist: Dr. Kristy Deiner – SimplexDNA

Media Artist: Prof. Dr. Jill Scott – SciArt Verein

Moderators: Silvie Cuperus (Life Science Zurich), Vanja Maksimovic (Hydrologist)

and roundtable discussions with the public

LASER TALK 2: "SOIL AND RESILIENCE, CLIMATE EXTREMES AND MICROORGANISM"

Speakers:

Soil Scientist: Dr. Aline Frossard, WSL

Performance Artist: Dorothea Rust

Soil Scientist: Ruben Kretzschmar, ETHZ

Filmmaker: Markus Tischner

Moderators: Marille Hahne (Filmmaker) and Christoph Küffer (Biologist)

and roundtable discussions with the public



KRISTY DEINER EXPLAINS BIODIVERSITY AND THE MONITORING OF IT THROUGH EDNA -DURING THE LASER TALK SERIES

FUTURE POTENTIALS FOR WETLAND WORLDS

Jill Scott and Dorothea Rust seek to further develop Wetland Worlds through collaborations with scientific teams working in diverse wetland regions. They are currently looking for institutional hosts interested in co-producing workshops and exhibitions based on locally situated wetland research.

This initiative is grounded in the following convictions:

- Citizen science is an essential cultural practice. It provides meaningful pathways for public engagement, fosters environmental responsibility, and supports informed activism in response to accelerating species extinction.
- Local wetland climate challenges are largely anthropogenic. Their regeneration therefore requires collective human intervention, interdisciplinary working groups, and long-term commitment to ecological recovery and climate justice.
- Wetland biodiversity demands transdisciplinary expertise. Productive responses emerge when artistic and scientific knowledge systems work together, pooling resources to address complexity and counter misinformation.
- Wetland Worlds exhibitions offer an accessible platform for public participation. The project appeals to a broad audience motivated to contribute to scientific data collection while deepening their understanding of wetland ecosystems.

DOCUMENTARY FILM AVAILABLE:



FULL FILM AVAILABLE HERE-select with QR Code

Further information on **The Biodiversity Workbench** and **Worried Wings** can be found in the film "Wetland Worlds: Exhibitions", directed by Jill Scott and Jasmine Chastonay.

EXHIBITIONS CREDITS

THE BIODIVERSITY WORKBENCH

Jill Scott, Dorothea Rust, Natascha Jankovski, Jasmine Chastonay, Sibylla Giger, Nikolaus Völzow, Vanessa Barrera, Marille Hahne, Raffaele Grosjean

WORRIED WINGS

Jill Scott, Natascha Jankovski, Jasmine Chastonay, Sibylla Giger, Olav Levrik, Nikolaus Völzow, Vanessa Barrera, Marille Hahne, Raffaele Grosjean, Tony Fröhlich

THE MOIST SOIL MICROTOUR

Dorothea Rust (Performance Artist),
Dr. Irene Cordero (Scientist, Community Biology WSL),
Arnold Häni (Swiss Alpine Club)

DISPLAY OF eDNA RESULTS BY SIMPLEX eDNA

Kristy Deiner, Jill Scott and Jasmine Chastonay

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