

CURRICULUM VITAE

**Aurélie Boissezon**

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As an aquatic ecologist, for the past 10 years my research studies have been dealing with the ecology and the phenology of freshwater plants in Switzerland and Europe, with an emphasis on charophytes. Previously employed at the department F.-A. Forel of the University of Geneva (<http://leba.unige.ch/team/past/aboissezon/>), I am now a research associate in the Applied Plant Ecology research group at the department of Nature management of the University of Applied Sciences and Arts of western Switzerland (HES-SO) (<http://hepia.hesge.ch/fr/rad-et-prestations/institut-intne/equipes/ecologie-vegetale-appliquee/>). The purpose of my research is to identify the regional and local drivers that shape aquatic plant communities, in particular the role of hydrological disturbances and temperature. My efforts are focused on studying the life history and phenological plasticity of plants in a given habitat because of their importance for colonisation and survival. Combining our previous results from field surveys with future *in situ* experiments on growth, we endeavour to predict the effect of climate change on freshwater ecosystems. My findings on the distribution and dynamics of this specific group of charophytes may then help to put in perspective some big questions in ecology, i.e. the role of neutrality in species coexistence and diversity or the role of environmental change on reproduction strategies. My results were published in national and international peer-reviewed scientific journals. Recently I am more interested in taxonomical issues (genetic vs environmental determinism) and in the management practices for macrophytes conservation. Thanks to my experience in aquatic research, I contribute to the description of aquatic and wetland vegetation in the national project « PhytoSuisse » (<https://www.infoflora.ch/fr/milieux/phytosuisse/>) and to the characterization of the invasive risk of alien species in urban ecosystems. My collaboration network extends worldwide (Europe and North America), and I am regularly invited by botanists and land managers to help identify species and recommend practices in habitat management. I am currently elaborating several actions in the benefit of charophytes identification in Switzerland. Lastly, I also elaborate and teach different courses at the Bachelor level for students in Nature Management, within the HES-SO, and in a Certificate of Advanced Studies (CAS), a course devised for a broader audience of environmental professionals.

Professional positions

- Since January 2015 : **Research associate**, HES-SO, Switzerland.
- November 2013-September 2016 : **Research associate**, University of Geneva, Switzerland.
- October 2008-September 2013 : **PhD student**, University of Geneva, Switzerland.

Current contributions to teaching (HES-SO)

- Knowledge of terrestrial habitats, Nature management Bachelor, 2nd year
- Plant ecology, Nature management Bachelor, 2nd year
- Methods of study and analysis of the vegetation, Nature management Bachelor, 2nd year
- Environmental pedagogy, Nature management Bachelor, 3rd year

Miscellaneous missions

- Administrative tasks for the Nature Management department (since 2016)
- Member of local organizing committee INTECOL, Geneva 2021 (since 2017)
- Co-organizer of the 20th meeting of European Charophytologists, University of Geneva (2015)
- Co-organizer of an Alpine Workshop in Evolène (Canton Valais), for the Master in Environmental Sciences, University of Geneva (2009-2012)
- Joint editor : « Du Reculet aux sommets alpins : quels changements sur les crêtes ? » (2017, Les cahiers de la Réserve naturelle n° 1, Réserve naturelle nationale de la Haute Chaîne du Jura. 172 p.)
- Invited co-proposer and co-author of the European Monography on Charophytes (COST Action Proposal OC-2017-1-21947 " Aquatic Bioindication by Charophytes ")

Funded Grants

University of Geneva

- Direction Générale de la Nature et du paysage (2013-2016), « Les characées de la région genevoise » (funding for 30 % research associate position, 30'000 CHF)
- Marc Birkigt Grant (2012), funding for the participation to 6th IRGC symposium in Argentina (2'000 CHF)
- Augustin Lombard Grant (2007), funding for my MSc (2'500 CHF)
- Société Académique (2009), funding for the investment in a laboratory stereo microscope (10'000 CHF)

HES-SO

- Compagnie Nationale du Rhône (2018-2019), « Etude pilote pour la conservation d'espèces aquatiques protégées : Mise en culture ex situ et translocation de populations de *Sparganium emersum* » (25'000 EUR)
- Office Fédéral de l'Environnement (2017-2018), « Assurance qualité des infos pratiques pour les macrophytes menacées et prioritaires » (72'000 CHF)
- Département Général de l'Eau-Canton de Vaud (2016), « Plan d'action en faveur de *Nitella syncarpa* dans le canton de Vaud » (18'500 CHF)

Peer reviewed publications

- Larkin, D.J., Monfils, A.K., **Boissezon, A.**, Sleith, R.S., Skawinski, P.M., Welling, C.H., Cahill, B.C., Karol, K.G., 2018. Biology, ecology, and management of starry stonewort (*Nitellopsis obtusa*; Characeae): A Red-listed Eurasian green alga invasive in North America. *Aquat. Bot.* 148, 15–24. <https://doi.org/10.1016/j.aquabot.2018.04.003>
- Oertli, B., **Boissezon, A.**, Rosset, V., Ilg, C., 2017. Alien aquatic plants in wetlands of a large European city (Geneva, Switzerland): from diagnosis to risk assessment. *Urban Ecosyst.* <https://doi.org/10.1007/s11252-017-0719-5>.
- Auderset Joye, D., **Boissezon, A.**, 2017. New insights into the ecology and phenology of two Characeae: *N. opaca* (Bruzellius) C. Agardh and *N. gracilis* (Sm.) C. Agardh. *Bot. Lett.* <https://doi.org/10.1080/23818107.2017.1365259>.
- **Boissezon, A.**, Auderset Joye, D., Garcia, T., 2017. Temporal and spatial changes in population structure of the freshwater macroalga *Nitellopsis obtusa* (Desv.) J.Groves. *Bot. Lett.* <https://doi.org/10.1080/23818107.2017.1356239>
- Calero, S., Auderset Joye, D., **Rey-Boissezon, A.**, Rodrigo, M.-A., 2017. Time and heat for sexual reproduction: comparing the phenology of *Chara hispida* of two populations at different latitudes. *Aquat. Bot.* 136, 71-81. <https://doi.org/10.1016/j.aquabot.2016.09.011>
- Auderset Joye, D., **Rey-Boissezon, A.**, 2015. Will charophyte species increase or decrease their distribution in a changing climate? *Aquat. Bot.* 120, 73–83. <https://doi.org/10.1016/j.aquabot.2014.05.003>
- **Rey-Boissezon, A.**, Auderset Joye, D., 2015. Habitat requirements of charophytes - Evidence of species discrimination through distribution analysis. *Aquat. Bot.* 120, 84–91. <https://doi.org/10.1016/j.aquabot.2014.05.007>.

- Soulié-Märsche, I., Triboit, F., Despréaux, M., **Rey-Boissezon**, A., Laffont-Schwob, I., Thiéry, A., 2013. Evidence of *Chara fibrosa*. Agardh ex Bruzelius, an alien species in South France. Acta Bot. Gal. 160,157-163.
- **Rey-Boissezon**, A., Auderset Joye, D., 2012. A temporary gravel pit as a biodiversity hotspot for aquatic plants in the Alps. Arch. des Sci. 65, 177–190.

Reports

- **Boissezon**, A., 2017. Projet Végét-Eau. Rapport intermédiaire 2017. MDLR-HEPIA, Jussy (Genève, Suisse).
- **Boissezon**, A., 2017. Inventaire et plan d'action - canton de Vaud : *Nitella syncarpa* (Thuil.) Kützing. hepia, DGE-Vaud, Genève.
- Prunier, P., **Boissezon**, A. (Eds.), 2017. Du Reculet aux sommets alpins : quels changements sur les crêtes ?, Réserve naturelle nationale de la Haute Chaîne du Jura. ed, Les cahiers de la Réserve naturelle. Gex.
- Auderset Joye, D., **Boissezon**, A., 2016. Phénologie et dynamique de populations de characées dans des plans d'eau genevois. Etat de Genève - Direction Générale de la Nature et du Paysage, Genève.
- Auderset Joye, D., **Boissezon**, A., 2014. Les Characées de Genève et environs : distribution et écologie. Genève : République et Canton de Genève, Direction Générale de la Nature et du Paysage, Genève.

Website

- **Boissezon**, A., Auderset Joye, D., Schwarzer, A., 2018. Système d'information pour les espèces menacées et prioritaires : Characées, Macrophytes aquatiques.
<https://www.infoflora.ch/fr/flore/characeae/identification/>
- Patrice, P., Greulich, F., Béguin, C., **Boissezon**, A., Delarze, R., Hegg, O., Klötlzi, F., Pantke, R., Steffen, J., Steiger, P., Vittoz, P., 2017. Phytosuisse : un référentiel pour les associations végétales de Suisse. V3.
<https://www.infoflora.ch/fr/milieux/phytosuisse/>
- Pasche, S., **Boissezon**, A., Bourguignon, Y., Martin, P., Mombrial, F., Prunier, P., 2016. Eaux. In « Les milieux naturels genevois : fiches descriptives »,
http://ge.ch/sitg/geodata/SITG/SFPNP_MILIEUX/Eaux.pdf
- Pasche, S., **Boissezon**, A., Bourguignon, Y., Martin, P., Mombrial, F., Prunier, P., 2016. 101. Eaux calmes. In « Les milieux naturels genevois : fiches descriptives »,
http://ge.ch/sitg/geodata/SITG/SFPNP_MILIEUX/101.pdf.
- Pasche, S., **Boissezon**, A., Bourguignon, Y., Martin, P., Mombrial, F., Prunier, P., 2016. 107. Eaux courantes. In « Les milieux naturels genevois : fiches descriptives »,
http://ge.ch/sitg/geodata/SITG/SFPNP_MILIEUX/107.pdf

Scientific conferences

Oral sessions

- **Boissezon**, A., Auderset Joye, D., Prunier, P., 2016. Conservation des Characées : de la Liste Rouge aux recommandations de gestion. RBA, Grenoble (France).
- **Boissezon**, A., Auderset Joye, D., Prunier, P., 2016. From regional to local scale approach: what did we learn about the habitat and the adaptative abilities of charophytes (Charales, Characeae)? EVS, Roma (Italia).
- **Boissezon**, A., Auderset Joye, D., 2014. From regional to local scale approach: what did we learn about the habitat and the adaptative abilities of *Nitellopsis obtusa*? 19th GEC, Vilnius (Lithuania).
- **Boissezon**, A., Auderset Joye, D., 2013. Succession d'espèces de characées et des plantes vasculaires associées le long d'un gradient de perturbation lié à l'assèchement. Colloque Macrophytes. Bordeaux (France).
- **Boissezon**, A., Auderset Joye, D., 2012. Succession of Charophytes species along a gradient of drought disturbance in an artificial temporary waterbody. 6th IRGC Symposium, Mendoza (Argentina).
- Auderset Joye, D., **Boissezon**, A., 2012. *Nitella gracilis* and *Nitella opaca*. Temperature and life cycle. 6th IRGC Symposium, Mendoza (Argentina).

- **Boissezon A.**, Auderset Joye D, Garcia T. 2011. Life cycle and biometric data of *Nitellopsis obtusa* (Desv.) J. Groves from a shallow temporary lake. 18th GEC, Poznan (Poland).
- Auderset Joye, D., **Boissezon, A.**, 2012. Charophyte conservation in a changing world. 18th GEC, Poznan (Poland).
- Soulié-Märsche, I., Triboit, F., Despréaux, M., **Boissezon, A.**, Laffont-Schwob, I., Thiéry, A. 2009. Evidence of an « alien » *Chara* species in South France. 16th GEC, Ohrid (Macedonia).

Posters

- Oertli, B., **Boissezon, A.**, Rosset, V., Ilg, C., 2017. Alien aquatic plants in wetlands of a large European city (Geneva, Switzerland): from diagnosis to risk assessment. 12th INTECOL, Beijing (China).
- Crovadore, J., Soljan, V., Mercier, A., **Boissezon, A.**, Lefort, F., 2017. Searching for nitrifying bacteria from sewage sludge assisted by metagenomic and metatranscriptomic analyses for optimisation of the wet oxidation process. 12th INTECOL, Beijing (China).
- **Rey-Boissezon, A.**, Auderset Joye, D., 2010. Influence of water level and temperature fluctuations on Charophyte community dynamics in a shallow lake. 17th GEC, Tallin (Estonia).

Open conferences

- **Boissezon, A.**, 2017. Les characées de Suisse. Ecologie, distribution, menaces. Journée Technique ARRA « Macrophytes lacustres », Université Savoie-Mont-Blanc, Bourget-du-Lac (France). *Invited*
- **Boissezon, A.** 2010. Les Charophytes (Charales, Characeae). Conférence publiques avec la Société Botanique de Genève, Geneva (Switzerland). *Invited*
- **Boissezon, A.** 2010. Les Characées en rive droite du Rhône. Excursion botanique et écologique avec la Société Botanique de Genève, Geneva (Switzerland). *Invited*
- Auderset Joye, D., Schwarzer, A., Lachavanne, J.-B., Juge, R., **Boissezon, A.**, Détraz-Méroz, J., Lehmann A., 2010. Les Characées de Suisse. Ecologie, Distribution et Menaces. Conférences publiques et actions autour de la biodiversité, Sion (Switzerland). *Invited*

Webinar

- Larkin., D. Cahill, B., Monfils, A., Karol, K., **Rey-Boissezon, A.**, Skawinski, P., Sleith, R., Welling, C., 2016. Starry Stonewort : Minnesota's newest aquatic invader. Minneapolis (Minnesota).
<https://www.maisrc.umn.edu/news/ssw-webinar> *Invited*.