

# PhD Ecophysicist & Bioinformatician

Quality: Organization, Scientific curiosity, Adaptation and Team working  
English (read, written and spoken), French native



Ripoll Julie

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1987/11/01

## Competences

**Bioinformatics:** Languages: Bash, R, Python, Perl & Java (notion); Bash-tools: Awk, Sed, Grep; Versioning: Gitlab, Conda, Automatization: Snakemake, mpiprun; Development of pipelines for: metabarcoding, transcriptome with reference, metatranscriptome without reference, metagenomics

**Statistics:** multiple comparisons, non-parametric models, linear model with AIC criteria, partial correlation, AUDPC, graphics (heatmap, MFA, cluster), image analyse FIJI (Jython), OJIP curves, volatile compounds analyse (Amdis32 and Shimadzu), sequence alignment and tree characterization

**Ecophysiology:** Chlorophyll *a* fluorescence, Photosynthesis, Phenotypage, field & controlled working (greenhouse, phytotron, quarantine work clearance P2 and P3 from USDA), Organic volatile compounds measurements (SPME and headspace)

**Laboratory analyses:** dosage of hormone, extraction and dosage of sugars, acids, vitamin C, carotenoids and stored volatile compound using spectrophotometry, HPLC, GCMS, TD-GCMS and HPLC, DNA extraction, Nanodrop, multiplex PCR, qPCR

**Communication and Mentoring:** participation at international and national congress (10 posters whose 2 winning (best student poster) + 6 oral presentations), Trainee frames (BTS to PhD student) and Teaching in University (Classes: Vegetal physiology, Initiation to laboratory working, R basics)

**Others competences:** entomology (insect breeding, behavioural studies, *genitalia*), phytopathology (inoculum preparation, infection monitoring, and identification of major diseases and pests of crops)

## Experiences

### *Institut Agronomique Calédonien, Noumea, New Caledonia*

- Volontariat Service Civique 05/11/2018 to 04/05/2019 (current position – 6 months)

Project: « BioIndic: meta-analyses of metagenomics projects »

Referent: [Fabian Carriconde](#)



### *IRD, UMR ENTROPIE, OCEANS Laboratory, Noumea, New Caledonia*

- Post doc (IE, private law contract) from 01/08/2017 to 31/10/2018 (15 months)

Project: « CARIOCA: Coral reef acclimatization to ocean acidification at CO<sub>2</sub> seeps »

Referents: [Véronique Berteaux-Lecellier](#) and [Gaël Lecellier](#)



### *University of Avignon and Pays du Vaucluse (UAPV) - UMR Qualisud*

- Post doc (IR) from 02/11/2016 to 30/06/2017 (8 months)

Project: « Lactuca genome comparison in different postharvest conditions »

Referents: [Véronique Vidal](#) and [David Roux](#)

- Post doc (IE) from 02/11/2015 to 30/09/2016 (11 months)

Projects: « INNORAISIN- Nutritional quality of grapes : a new lever that can be mobilized by the industry to meet consumer's expectations and preferences» and « UV Boosting plant defenses ».

Collaborations: CTIFL (St-Rémy de Provence) and Claranor (Avignon)

Referents: [Laurent Urban](#) and [Iawad Aarrouf](#)



### *INRA PACA - UR1115 Plantes et Systèmes de culture Horticoles (SFR TERSYS)*

- Thesis from 01/10/2011 to 21/04/2015 (43 months) with teaching

Title: « Effects of water stress, only or in interaction with a pathogen, on plant functioning and fruit quality of *Solanum lycopersicum L.*, depending on genetic variation »

Collaborations: Centre d'Ecologie Fonctionnelle et Evolutive équipe Dream (CNRS Montpellier), Laboratoire Génétique et Amélioration des Fruits et Légumes (INRA - PACA), Laboratoire de Pathologie Végétale (INRA PACA) and University of Avignon.

Mentors : [Nadia Bertin](#) and [Laurent Urban](#)



### *European Biological Control Laboratory - United States Department of Agriculture (USDA - ARS - EBCL)-*

- Master 2 training : 01/03/10 to 30/09/10 (7 months)

Title: « Contribution of genetic and life history traits to the invasive power of Sylverleaf nightshade as part of a biological control program »

Referents: Marie-Claude Bon and [Walker Jones](#)



### *CIRAD Montpellier*

- Master 1 training : 01/02/09 to 15/07/09 (5 months)

Collaborations: INRA Versailles (ecological chemic analyses), SOCAPALM Cameroun (field measurements)

Referents: [Laurence Ollivier](#) and [Brigitte Frérot](#)



## Qualifications

### *Thesis in Agronomic Sciences*

#### **Validated with mention TH (2015)**

Physiology, Fruit quality, Water deficit, *B. cinerea*, OJIP model, Genetic variability

#### Teaching at University (BSc degrees)

### *Master Bio-engineering (Biotechnology)*

#### **Validated with mention B (2010)**

Biodetection kit, DNA chips, RFID, Project managing, ISO 9001 and 14001, HACCP, Sequencing, Bioinformatics

### *Licence Biology -Ecology*

#### **Validated with mention P (2008)**

Cellular and bacterial cultures, API gallery, Antibiogram, SIG, Fire risk training, Ecology, Parasitology

## Formations

**2017 Qualifications CNU:** sections 66, 67 and 68 (teaching in University)

**2015 MOOC INRIA:** 41001S02 'Python'

## Professional associations

Member of French Society of Statistics in 2016-2017

Member of French Society of Bioinformatics (SFBI) in 2018

## Web sites (hyperlink on logo):



## Publications

**Ripoll J.**, Berteaux-Lecellier V., Magalon H., Gérin P., Oury N., Biscré T., Houlbreque F., Fauvelot C., Mana R., Fabricius K., Rodolfo-Metalpa R., Lecellier G. (*In prep.*). Acclimatization of three coral species to ocean acidification around natural CO<sub>2</sub> seeps: transplantation & gene expression.

**Ripoll J.**, Charles F., Vidal V., Laurent S., Klopp C., Laurie F., Sallanon H., Roux D. (*In prep.*). Transcriptome regulations of lettuce leaves after intermittent light treatment during post-harvest storage.

**Ripoll J.**, Charles F., Vidal V., Laurent S., Klopp C., Laurie F., Sallanon H., Roux D. (*In prep.*). Transcriptional response pathways involved during storage of packaged lettuce leaves: a crosstalk between wounding, dehydration and senescence.

Lecompte F., Nicot P.C., **Ripoll J.**, Abro M.A., Rimbault A.K., Lauri F., Bertin, N. (**2017**). Reduced susceptibility of tomato stem to the necrotrophic fungus *Botrytis cinerea* is associated with a specific adjustment of fructose content in the host sugar pool. *Annals of Botany*, 119(01):1-13- DOI: 10.1093/aob/mcw240.

**Ripoll J.**, Bertin N., Bidel L.P.R., Urban L. (**2016**). A User's View of the Parameters Derived from the Induction Curves of Maximal Chlorophyll a Fluorescence: Perspectives for Analyzing Stress. *Frontiers in Plant Science*. doi: 10.3389/fpls.2016.01679

**Ripoll J.**, Urban L., Bertin N. (**2016**). The potential of the MAGIC TOM parental accessions to explore the genetic variability in tomato acclimation to repeated cycles of water deficit and recovery. *Frontiers in Plant Sciences*. 6:1172 doi: 10.3389/fpls.2015.01172.

**Ripoll J.**, Urban L., Brunel B., Bertin N. (**2016**). Water deficit effects on tomato quality depend on fruit developmental stage and genotype. *Journal of Plant Physiology*. 190: 26-35. doi: 10.1016/j.jplph.2015.10.006.

**Ripoll J.** (**2015**). Effects of water stress, only or in interaction with a pathogen, on plant functioning and fruit quality, depending on genetic variation. PhD Thesis.

**Ripoll J.**, Urban L., Brunel B., L'Hôtel J-C., Garcia G., Bertin N. (**2015**). Impact of water deficit on tomato fruit growth and quality depends on the fruit developmental stage. *Acta Horticulturae*. DOI: 10.17660/ActaHortic.2016.1112.24

Urban L., Staudt M., **Ripoll J.**, Lauri F., Bertin N. (**2015**). Less can make more - revisiting fleshy fruit quality and irrigation in horticulture. *Chronica Horticulturae*. 54 (4), p. 24-31.

**Ripoll J.**, Urban L., Staudt M., Lopez-Lauri F., Bidel L.P.R., Bertin N. (**2014**). Water shortage and quality of fleshy fruits - making the most of the unavoidable. *Journal of Experimental Botany*, 65(15), p. 4097-4117.

**Ripoll J.**, Bon M.-C., Jones W.A. (**2011**). Optimization of the genomic DNA extraction method of silverleaf nightshade (*Solanum elaeagnifolium* Cav.), an invasive plant in the cultivated areas within the Mediterranean region. *Biotechnologie, Agronomie, Société et Environnement*, 15(1), p.95-100.

## Oral communications

**Ripoll J.** (**2018**). 4<sup>th</sup> APCRS congress. Cebu-Philippines (June 3-9).

**Ripoll J.** (**2017**). Séminaire «Les nouvelles techniques de génomiques: applications, contraintes et perspectives». University of New Caledonia, Noumea (December 12).

**Ripoll J.** (**2016**). Umeå Plant Science Center, UPSC Days, Oral presentation as successful post-doc candidate (selected among 90 candidates), Umeå – Sweden (May 30-31).

**Ripoll J.** (**2014**). Concours Ma thèse en 180 secondes, Finale locale d'Avignon (April 4).

**Ripoll J.** (**2013**). Journée Tersys 2013, Avignon (September 12).

**Ripoll J.** (**2010**). Séminaire Printemps de Baillarguet 2010, Montferrier sur lez (April 29).

## Posters

Lecompte F., Nicot PC., **Ripoll J.** et al (**2016**). 17th International Botrytis Symposium (October 23). Poster.

**Ripoll J.**, Bertin N., Urban L. (**2015**). DROPS Congress, Montpellier (June 8-9). Poster.

**Ripoll J.**, Urban L., Brunel B., L'Hôtel J-C., Bertin N. (**2014**). 29e International Horticultural Congress, Brisbane (August 17-22). Poster digital.

**Ripoll J.**, Bertin N., Al Halabi R., Buatois B., Staudt M. (**2014**). Plant Biology Europe FESPB/EPSO Congress, Dublin (June 22-26). Poster.

**Ripoll J.**, Urban L., Brunel B., Goujon A., L'Hôtel J-C., Causse M., Bertin N. (**2014**). Plant Biology Europe FESPB/EPSO Congress, Dublin (June 22-26). Poster.

**Ripoll J.**, Urban L., Brunel B., Goujon A., L'Hôtel J-C., Causse M., Bertin N. (**2014**). XVIIth EUCARPIA Meeting of the Tomato Working Group, Avignon (April 22-25). Poster. First prize for the best student poster.

**Ripoll J.**, Lecompte F., Nicot P., Lauri F., Urban L. and Bertin N. (**2013**). Journée Tersys, Avignon (September 12). Poster. First prize for the best student poster.

**Ripoll J.**, et al (**2012**). Journée des Ecoles doctorales, Avignon (Oct 29-31), Poster.

**Ripoll J.**, et al. (**2010**). Colloque national Ecologie 2010, Montpellier (September 2-4), Poster.

Beaudooin-Ollivier L., Frérot B., **Ripoll J.**, et al. (**2010**). Congress Palms 2010, International Symposium on the biology of the Palm family, Montpellier (May 5-7), Poster.