

PUBLICATIONS IN PEER-REVIEWED JOURNALS

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- J12- **Collin, A.**, Archambault, P. and S. Planes, 2014. "Revealing the regime of shallow coral reefs at patch scale by continuous spatial modeling", *Front. Mar. Sci.* 1:65. doi: 10.3389/fmars.2014.00065.
- J11- **Collin, A.**, Nadaoka, K., and T. Nakamura, 2014. "Mapping VHR Water Depth, Seabed and Land Cover Using Google Earth Data", *ISPRS Int. J. Geo-Inf.*, 3(4), 1157-1179.
- J10- **Collin, A.**, Archambault, P. and S. Planes, 2013. "Bridging Ridge-to-Reef Patches: Seamless Classification of the Coast Using Very High Resolution Satellite", *Remote Sensing*, 5, 3583-3610.
- J9- **Collin, A.**, Etienne, S. and S. Planes, 2013. "High-energy events, coastal boulder deposits and the use of very high resolution remote sensing", *Journal of Coastal Research*, 65, 690-695.
- J8- Pouteau, R., **A. Collin**, 2013. "Spatial location and ecological content of support vectors in an SVM classification of tropical vegetation", *Remote Sensing Letters*, 4:7, 686-695.
- J7- **Collin, A.**, S. Planes, 2012. Enhancing Coral Health Detection Using Spectral Diversity Indices from WorldView-2 Imagery and Machine Learners, *Remote Sensing*, 4, 3244-3264.
- J6- **Collin, A.**, J. Hench, 2012, "Towards deeper measurements of tropical reefscape structure using the WorldView-2 spaceborne sensor", *Remote Sensing*, 4(5), 1425-1447.
- J5- **Collin, A.**, B. Long and P. Archambault, 2012, "Merging land-marine realms: spatial patterns of seamless coastal habitats using a multispectral LiDAR", *Remote Sensing of Environment*, 123: 390-399.
- J4- **Collin, A.**, P. Archambault and B. Long, 2011, "Predicting species diversity of benthic communities within turbid nearshore using full-waveform bathymetric LiDAR and machine learners", *PLoS ONE*, 6(6): e21265.
- J3- **Collin, A.**, B. Long and P. Archambault, 2011, "Benthic classifications using bathymetric LiDAR waveforms and integration of local spatial statistics and textural features", *Journal of Coastal Research*, 62: 86-98.
- J2- **Collin, A.**, B. Long and P. Archambault, 2010, "Salt-marsh characterization, zonation assessment and mapping through a dual-wavelength LiDAR", *Remote Sensing of Environment*, 114 (3): 520-530.
- J1- **Collin, A.**, B. Long and P. Archambault, 2008, "Mapping the shallow water seabed habitat with the SHOALS", *IEEE Transactions on Geoscience and Remote Sensing*, 46(10): 2947-2955.

BOOK CHAPTERS

- B2- **Collin, A.**, Chancerelle, Y., Pouteau, R, 2014, "The reefscape ecology in the middle of the Southern Pacific: confluence of the Polynesia Mana network and Very High Resolution Satellite". In *Underwater Seascapes: from geographical to ecological perspectives*, French Agency of Marine Protected Areas (Ed.), Springer, 241-258.
- B1- **Collin, A.**, B. Long and P. Archambault, 2011, "Coastal kelp forest habitat in the Baie des Chaleurs, Gulf of St. Lawrence, Canada". In: *Seafloor Geomorphology as Benthic Habitat*, Harris, P.T. and E.K. Baker, Elsevier, 201-209.

PUBLICATIONS IN REVIEW OR REVISION

- J14- Sharma, S **A. Collin**, K. Nadaoka, 2014, “Spatial modeling of the mangrove-sequestered carbon in Fukido, Japan”, *Biogeosciences*.
- J13- **Collin, A.**, and K. Nadaoka, 2014, “Coral reefs in Japan protect the human habitats”, *Proceedings of the National Academy of Sciences*.

PUBLICATIONS IN PEER-REVIEWED PROCEEDINGS

- P11- Hak, D., K. Nadaoka and **A. Collin**, 2015, “Detecting coastal feature changes in Mekong delta using multi-temporal landsat and Google earth Images”, 18th International Water Technology Conference - IWTC 12-14 March.
- P10- Pouteau, R., **A. Collin**, P. Archambault and B. Stoll, 2013, “Modeling reef health from upstream socio-ecological components using GIS and RS”, International Geoscience and Remote Sensing Symposium - IEEE International 21-26 July.
- P9- **Collin, A.**, J.L. Hench, and S. Planes, 2012, “A novel spaceborne proxy for mapping coral cover”, 12th International Coral Reef Symposium - 9-13 July, 5A Remote sensing of reef environments.
- P8- **Collin, A.**, and S. Planes, 2011, “What is the value added of 4 bands within the submetric remote sensing of tropical coastscape? QuickBird-2 vs WorldView-2?”, International Geoscience and Remote Sensing Symposium - IEEE International 24-29 July.
- P7- Aucoin, F., Long, B., Xhardé, R., and **A. Collin**, 2011, “Using airborne LiDAR bathymetry to map coastal hydrodynamic processes”, Proceedings of the Coastal Sediments, 2-6th May: 2479-2491.
- P6- Pouteau, R., **A. Collin**, and B. Stoll, 2011, “A Comparison of machine learning algorithms for classification of tropical ecosystems observed by multiple sensors at multiple scales”, 34th International Symposium for Remote Sensing of Environment, Sydney, 10 - 15 April.
- P5- Long, B., F. Aucoin, S. Montreuil, V. Robitaille, R. Xhardé, and **A. Collin**, 2010, “Airborne LiDAR bathymetry applied to coastal hydrodynamic processes”, Proceedings of the 32nd International Conference of Coastal Engineering - ICCE 30 June - 5 July.
- P4- **Collin, A.**, B. Long and P. Archambault, 2008, “Relating spatial benthoscape patterns with a high resolution bathymetric LiDAR”, Proceedings of the 31st International Conference of Coastal Engineering - ICCE 31 August- 5 September: 4645-4657.
- P3- **Collin, A.**, B. Long and P. Archambault, 2008, “The use of the SHOALS waveforms to mapping habitat within the seamless benthoscape”, International Geoscience and Remote Sensing Symposium – IEEE International 6-11 July: (II) 1144 – 1147.
- P2- **Collin, A.**, Cottin, A., Long, B., Kuus, P., Clarke, J.H., Archambault, P., Sohn, G., and J. Miller, 2007, “Statistical classification methodology of SHOALS 3000 backscatter to mapping coastal benthic habitats”, International Geoscience and Remote Sensing Symposium - IEEE International 23-28 July: 3178 – 3181.
- P1- Cottin, A., **Collin, A.**, and B. Long, 2007, “What Optech’s bathymetric LiDAR sees underwater”, International Geoscience and Remote Sensing Symposium - IEEE International 23-28 July: 3170 – 3173.

OTHER PEER-REVIEWED PUBLICATIONS

THESES

- T2- **Collin, A.**, 2009, “*Coalescence of the littoral landscape ecology and the ubiquitous airborne LiDAR*”, Thesis of Philosophiae Doctor of Sciences. University of Québec, Canada, 280 p.
- T1- **Collin, A.**, 2005, “*Connectivity and endemism in tropical seas: Case study of the hydrozoans in La Réunion Island*”, Thesis of Master of Sciences. University of Paris VI, France, 46 p.

TECHNICAL REPORTS

R1- **Collin, A.**, 2010, “*Mapping of the coral reefscape and modeling the species diversity in Moorea (French Polynesia) using WorldView-2 imagery*”, EPHE, France, 127 p.

STUDENT JOURNAL

Collin, A., 2003, “Mother-young relationships between the female in the genus *Schultesia* (Blattaria : Blaberidae : Zetoborinae) and the larva in the genus *Phoetelia* (Blattaria : Blaberidae)”, *Biologos* (<http://biologos.univ-rennes1.fr/index.htm>), University of Rennes I, 13 p.

OTHER PUBLICATIONS

WEB PUBLICATIONS

- W2- **Collin, A.**, 2011, biography “Coastal and Marine Ecology / Remote Sensing”, <http://usr3278.univ-perp.fr/pagespro/?p=303>
- W1- **Collin, A.**, 2011, “Témoignages de diplômés, INRS Centre Eau Terre Environnement, Retour sur 10 années de formation, lauréat 2009”, <http://10ans.ete.inrs.ca/temoignages/2009.html>

INVITED LECTURES & DEPARTMENTAL SEMINARS

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- 17- **Collin, A.**, 2015, “Bathymetry mapping using spaceborne data”, Zurich Institute of Technology, Zurich, 9th February.
- 16- **Collin, A.**, 2015, “Spatio-temporal patterns of a socio-ecosystem engineer in tropics”, Zurich Institute of Technology, Zurich, 6th March.
- 15- Etienne, S., **Collin, A.**, Jeanson, M., 2015, “Etude des services éco-systémiques de protection des dépôts sédimentaires en baie du Mont-Saint-Michel”, Ecology and Sustainable Development Scientific Committee, Rennes, 4th February.
- 14- **Collin, A.**, 2014, “La résilience des socio-écosystèmes littoraux inféodés aux récifs coralliens Japonais”, Littoral Geomorphology and Environment Lab, Dinard, 18th December.
- 13- **Collin, A.**, 2014, “Linking spatio-temporal patterns of the coral reef socio-ecosystem in Japan”, University of Ulster, Coleraine, 10th December.
- 12- **Collin, A.**, 2014, “Navigating the fellowship towards professorship: from coastal observation to ecological engineering”, Tokyo Institute of Technology, Tokyo, 9th October.
- 11- **Collin, A.**, 2014, “The Spatial Resilience of Japanese Coral Reef Socio-Ecosystems”, Tokyo Institute of Technology, Tokyo, 27th May.
- 10- **Collin, A.**, 2014, “Coastal and Marine Landscapes from a Bird's Eye View”, KAUST, Thuwal, 20th April.
- 9- **Collin, A.**, 2013, “Coral reef ecological service in a developed country (Nansei archipelago, Japan)”, Nadaoka lab, Tokyo Institute of Technology, 17th October.
- 8- **Collin, A.**, 2013, “From Vulnerability to Resilience Mapping of Coral Reef Socio-Ecosystems”, Nadaoka lab, Tokyo Institute of Technology, 11th April.
- 7- **Collin, A.**, 2012, “Spatial resilience of the Nansei socio-ecological reefscales”, Tokyo Institute of Technology, Tokyo, 29th November.

- 6- **Collin, A.**, 2012, “Ecologie du paysage récifal en Polynésie française”, Insular Research Centre and Environment Observatory, Moorea, 8th June.
- 5- **Collin, A.** and Y. Chancerelle, 2011, “L’étude du paysage récifal corallien au cœur du Pacifique sud : confluence du réseau Polynesia Mana et du satellite haute résolution”, Marine Protected Areas Agency, Brest, 30th March.
- 4- **Collin, A.**, 2011, “Salmon habitats targeted with bathymetric LiDAR”, NOAA, Santa Cruz, 11th January.
- 3- **Collin, A.**, 2010, “L’écologie du paysage récifal via le prisme de la télédétection”, Insular Research Centre and Environment Observatory, Moorea, 28th May.
- 2- **Collin, A.**, 2010, “Cartographie du Parc Naturel Marin d’Iroise via le LiDAR bathymétrique”, Marine National Park of Iroise, Le Conquet, 11th March.
- 1- **Collin, A.**, 2010, “Cartographie des Aires marines et littorales par le LiDAR”, Marine Protected Areas Agency, Brest, 23th February.

PRESENTATIONS

ORAL

- 17- Pouteau, R., **A. Collin**, P. Archambault and B. Stoll, 2013, “Modeling reef health from upstream socio-ecological components using GIS and RS”, International Geoscience and Remote Sensing Symposium - IEEE International 21-26 July.
- 16- **Collin, A.**, and K. Nadaoka, 2013, “Vulnerability assessment of coral reef socio-ecosystems using a multi-scale approach in Okinawa, Japan”, 35th International Symposium of Remote Sensing of Environment, 22-26 April.
- 15- **Collin, A.**, and S. Etienne, 2013, “Mapping the geomorphic impacts of high-energy events on coral reefs using very high resolution remote sensing: a case study in French Polynesia”, 12th International Coastal Symposium, Plymouth University, 8-12 April.
- 14- Etienne, S. and **A. Collin**, 2012, “Interest of Very High Resolution Remote Sensing for Coastal Boulder Studies: a Case Study on Tetiaroa Atoll, French Polynesia”, 12th Asia Oceania Geoscience Symposium, 13-17 August.
- 13- **Collin, A.**, J.L. Hench, and S. Planes, 2012, “A novel spaceborne proxy for mapping coral cover”, 12th International Coral Reef Symposium - 9-13 July, 5A Remote sensing of reef environments.
- 12- Hench, J.L., J.H. Rosman, K.L. Yeakel, and **A. Collin**, 2012, “Understanding and parameterizing roughness in circulation models of coral reefs”, 12th International Coral Reef Symposium, 9-13 July, 4A Water motion, abiotic and biotic processes on coral reefs.
- 11- **Collin, A.**, B. Long and P. Archambault, 2010, “Spatial predictability of species diversity and abundance of epimacrobenthos in turbid nearshore using bathymetric LiDAR”, 11th GeoHab 2010, Wellington, 3-7th May.
- 10- Robitaille, V., B. Long and **A. Collin**, 2009, “Accomplishments and outlooks”, 11th annual scientific conference GEOIDE, Vancouver, 27-29th May.
- 9- **Collin, A.**, B. Long and P. Archambault, 2009, “LiDAR-assessed seamless littoral ecosystems in 2D and 3D”, GeoHab 2009, Trondheim, Norway, 5-8th May.
- 8- **Collin, A.**, B. Long and P. Archambault, 2009, “The use of the bathymetric LiDAR for Nearshore Habitat Suitability Modelling”, FUDOTERAM 2nd workshop, Québec city, 26-27th March.
- 7- **Collin, A.**, B. Long and P. Archambault, 2008, “Benthoscape mapping at speed of light”, Meeting on FUDOTERAM project, Québec city, 27-28th November.
- 6- Long, B., Y. Keramoal, **A. Collin** and A. Cottin, 2008, “A new approach to determine the bathymetry in a very shallow environment using the SHOALS 3000T signal”, 5th International on high-resolution surveys in shallow water, Portsmouth, NH, 21-24th October.

- 5- **Collin, A.**, B. Long and P. Archambault, 2008, “Relating spatial benthoscape patterns with a high resolution bathymetric LiDAR”, International Conference of Coastal Engineering, Hamburg, 31 august - 5 September.
- 4- **Collin, A.**, B. Long and P. Archambault, 2008, “Mapping the coastal habitats: the SHOALS as a tremendous tool for benthoscape ecology”, 9th Annual Coastal Mapping and Charting Workshop, San Francisco, 17-19th June.
- 3- Long, B., A. Cottin and **A. Collin**, 2008, “SHOALS-3000T Waveform Analysis for Sedimentary Seafloor Classification”, Coastal Zone Canada Conference, Vancouver, 25-29th May.
- 2- Cottin, A., **Collin, A.**, and B. Long, 2007, “The FUDOTERAM Project: Various Analysis of the Pulse Waveform for Bottom Classification”, JALBTCX workshop, Seattle, 17-18th May.
- 1- **Collin, A.**, B. Long and P. Archambault, 2007, “SHOALS benthic habitat discrimination using multivariate analysis”, FUDOTERAM 1st workshop, Toronto, 27-28th March.

POSTER

- 10- **Collin, A.**, and K. Nadaoka, 2014, “Mapping the resilience of the coral reef socio-ecosystems in Japan”, Ocean Sciences Meeting, Honolulu, 23-28th February.
- 9- **Collin, A.**, and S. Planes, 2011, “What is the value added of 4 bands within the submetric remote sensing of tropical coastscape? QuickBird-2 vs WorldView-2?”, International Geoscience and Remote Sensing Symposium - IEEE International, Vancouver, 24-29th July.
- 8- Pouteau, R., **Collin, A.** and B. Stoll, 2011, “A comparison of machine learning algorithms for classification of tropical ecosystems observed by multiple sensors at multiple scales”, 34th International Symposium for Remote Sensing of Environment, Sydney, 10 - 15th April.
- 7- Barrell, J., J. Grant, M. Dowd, L. Lu, **A. Collin** and P. Archambault, 2009, “Characterizing arctic intertidal landscape features (Baffin Island, Nunavut, Canada).” CHONe workshop, Montreal, 30th september-3rd october.
- 6- **Collin, A.**, B. Long and P. Archambault, 2008, “The use of the SHOALS waveforms to assess habitat complexity within the benthoscape”, International Geoscience and Remote Sensing Symposium, Boston, 6-11th July.
- 5- **Collin, A.**, B. Long and P. Archambault, 2008, “The bathymetric LiDAR: an adequate tool devoted to benthoscape”, 10th annual scientific conference GEOIDE, Niagara Falls, 28-30th May.
- 4- **Collin, A.**, B. Long and P. Archambault, 2008, “A new methodology to mapping coastal habitats: backscatters classification of the most accurate bathymetric LiDAR”, Geologic Association of Canada – Mineralogic Association of Canada, Québec city, 26-28th May.
- 3- Cottin, A., **Collin, A.**, and B. Long, 2007, “What Optech’s bathymetric LiDAR sees underwater”, International Geoscience and Remote Sensing Symposium, Barcelona, 23-28th July.
- 2- **Collin, A.**, Cottin, A., Long, B., Kuus, P., Clarke, J.H., Archambault, P., Sohn, G., and J. Miller, 2007, “Statistical classification methodology of SHOALS 3000 backscatter to mapping coastal benthic habitats”, International Geoscience and Remote Sensing Symposium, Barcelona, 23-28th July.
- 1- **Collin, A.**, B. Long and P. Archambault, 2007, “Statistical classification of SHOALS 3000 backscatter to mapping coastal benthic habitats”, 9th annual scientific conference GEOIDE, Halifax, 6-9th June.