



Capability Document: Specialist Marine Turtle Research and Monitoring Services

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**BLUE
PLANET
MARINE**

Blue Planet Marine – Specialist Marine Turtle Research and Monitoring Services

OUR CAPABILITY

Blue Planet Marine (BPM) is a world-class marine environmental research and consulting service. Our expert Marine Turtle Team will deliver quality advice, knowledge, experience and skill to your project, assisting you to meet your required aims and outputs.

The BPM Marine Turtle Team complements the existing extensive marine megafauna expertise within BPM. Drawn together by BPM and comprised of five key members (each an experienced and independent specialist in marine turtle research), the Marine Turtle Team works with us on a project-by-project basis. This collaborative approach provides BPM with the flexibility to adapt to the specific needs of each project and provides you with the confidence that your project is in the hands of the right expert. In addition, we have fostered relationships with a wide international network of marine turtle specialists, so when required, we can easily complement the skills of our key members.

BPM will work closely with you at all times in order to meet your environmental, conservation, management and social goals. All of our work and systems are subject to quality standards based upon ISO 9001, AS/NZS 4801 and ISO 14001.

KEY MARINE TURTLE TEAM MEMBERS

The five key members of the BPM Marine Turtle Team have been carefully selected for their extensive and complementary knowledge, experience and skills. Together, they have worked with all species of marine turtles found in Australian, New Zealand and South Pacific waters, and have exceptional survey design, fieldwork, analysis, reporting and communication skills.

The members of the Marine Turtle Team have made significant contributions to the scientific knowledge about marine turtles. Together they have 85 years of experience working with marine turtles, and published over 30 peer-reviewed scientific papers, two book chapters and 42 government reports on marine turtle ecology, biology, genetics, conservation and management. They have also dedicated time to capacity building projects within local communities.

Dr Nancy FitzSimmons – Marine Turtle Ecologist and Geneticist

Dr Nancy FitzSimmons is Australia's leading marine turtle geneticist. Since 1991 she has conducted research on all species of marine turtles in the Indo-Pacific in order to define breeding populations, delineate Management Units and determine stock composition of feeding ground populations. She has worked closely with state and federal government to convey this information and guide policy development. In 2013 Nancy co-authored the Australian Commonwealth Government's Draft Marine Turtle Recovery Plan.

Recently, Nancy led a project to develop a population model for the northern Great Barrier Reef green turtle population for the Great Barrier Reef Marine Park

Authority. This user-friendly model is used by the Authority and Indigenous ranger groups to assess the severity of impacts upon this population of green turtles.

Nancy has considerable experience in the training of volunteers (fishermen and community members) for local nesting monitoring and stranding programs, and in the development and delivery of training workshops for turtle nest monitoring activities in order to build capacity within indigenous communities. She has extensive involvement in eco-tourism/turtle programs.

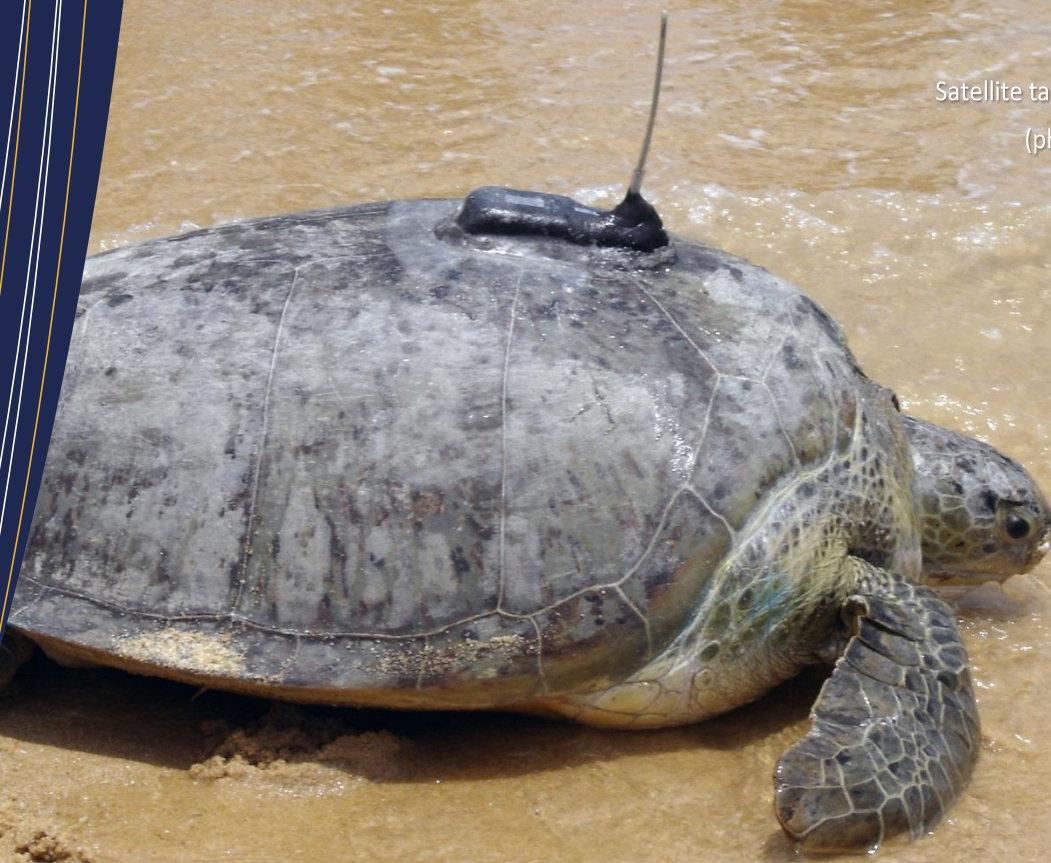
As an active member of the IUCN marine turtle specialist group since 1998, Nancy has provided information on marine turtle stock structure for the IUCN, the United Nations Environment Program and the US Government.

Nancy is an Adjunct Associate Professor at Griffith University, Australia.

Dr Michelle Boyle – Marine Turtle Ecologist and Biologist

Since 1996 Dr Michelle Boyle has specialised as a Marine Turtle Ecologist and Biologist in Australia, New Zealand, Fiji, New Caledonia and Torres Strait. She has worked within and alongside research institutes, government agencies, NGOs, environmental consulting companies and local communities.

Highly experienced in all aspects of marine turtle nesting research and foraging ground work, Michelle's research has also focussed on the migrations of the pelagic juvenile life history stage of green and loggerhead turtles from east Australia. Her work is multidisciplinary and incorporates spatial and temporal distribution, oceanic currents, diet analysis, and genetic sampling and analysis. Through her work Michelle has collaborated with international researchers, fishermen, indigenous communities, government agencies and NGOs. She has been involved in regional and community-based consultation, community engagement, training workshops for community capacity building and provided expert scientific advice on



Satellite tag on green turtle, Malaysia
(photo: Jason van de Merwe)

anthropogenic issues relating to marine turtles. Michelle has a particular interest in empowering communities to manage their marine turtle resources. She spent 12 months in Fiji where she engaged with local fishermen and families in order to collect information on the harvest of marine turtles. More recently she developed a database for the Torres Strait Regional Authority for use by indigenous rangers when collecting biological data on marine turtles and dugongs harvest. Michelle has extensive involvement in eco-tourism/turtle programs.

In 2013 Michelle co-authored the Australian Commonwealth Government's Draft Marine Turtle Recovery Plan. She has also been involved in undertaking environmental audits on the effects of LNG developments on the nesting turtles.

Michelle is an independent Marine Environmental Consultant.

Dr Jason van de Merwe – Marine Turtle Ecologist and Biologist

Dr Jason van de Merwe's primary interest is the management of interactions between marine turtles and human activities. His PhD research focussed on chemical contamination of marine turtles, and since 1999 he has worked with government agencies, non-profit organisations, research institutes and environmental consulting companies in Australia, Malaysia the South Pacific and Hong Kong providing technical advice, scientific research, impact assessments and community engagement in marine turtle conservation.

Throughout his work Jason has gained extensive experience in marine turtle nesting studies, foraging ground studies (including rodeo capture), migrations and localised movements (involving satellite telemetry), and collection of blood and tissue samples for the analysis of chemical contaminants. In 2013 he co-authored the Australian Commonwealth Government's Draft Marine Turtle Recovery Plan.

Jason is a Research Fellow at Griffith University, Australia.

Dan Godoy M.Sc. (Hons) – Marine Turtle Biologist

A Marine Biologist since 2000, Dan Godoy is currently completing his PhD on the biology and conservation management of green turtles in New Zealand. As part of his research, he set up the first marine turtle sighting network and satellite tracking study for marine turtles in New Zealand. In addition, he incorporates turtle necropsy, diet analysis, and genetic analysis to investigate the biology, origin and anthropogenic impacts of green turtles in New Zealand.

Dan is experienced in marine turtle field research including turtle nesting surveys and the capture of free ranging turtles. In this area he has worked with researchers, private companies, NGOs, government agencies, and local communities in New Zealand, Australia and Papua New Guinea.

Dan has delivered marine turtle conservation and education seminars throughout New Zealand and in Papua New Guinea, and has provided scientific advice to the New Zealand Government regarding handling, recovery, and emergency first-response of marine turtles. Recognising his expertise, in 2013 Dan was elected as a member of the IUCN Species Survival Commission Marine Turtle Specialist Group – Oceania Region.

Dan is a PhD candidate at Massey University, New Zealand, and an independent Marine Environmental Consultant.

Paul McCann B.Sc., Post Grad. Cert. Education, Post Grad. Cert. Marine Science – Marine Turtle Biologist

Paul McCann is a highly skilled Marine Biologist with demonstrated experience in the management, supervision and refinement of scientific marine turtle monitoring programs, experimental design and research field work. Throughout his 12-year career he has amassed a valuable combination of technical and research skills. Paul has worked on marine turtle programmes for industry and non-government organisations in Australia, India and the Seychelles. Projects include: artificial light impact studies on flatback turtle hatchlings; satellite tracking and monitoring studies of flatback turtles incorporating vessel- and shore-based surveys of marine turtle nesting and foraging habitats; environmental assessment and marine baseline studies; nesting, tagging and focal behaviour studies on hawksbill turtles; and data collection and supervision of a hatchery monitoring program for olive ridley turtles.

Paul complements his marine turtle expertise with a wealth of experience in HSE management, direction and management of large, multi-disciplinary environmental monitoring programs and EIA.

Paul is an independent Marine Environmental Consultant.


WHO WE WORK WITH

Business/Industry – seeking technical advice, research and monitoring, environmental impact assessment and planning, development and practical implementation of policy, and environmental training.

Government – seeking research and monitoring capability, technical and policy advice, operational, documentation and strategy support.

Scientists – seeking research collaboration, specialist research skills and equipment, HSE and project management.

Non-government organisations – seeking practical scientific input and technical advice, documentation, environmental training, collaboration and partnership.



Loggerhead turtle escaping net equipped with a TED (photo: NOAA)

HOW WE CAN HELP YOU

Marine Turtle Research and Monitoring

- Survey design, baseline surveys and the development of on-going monitoring programs
- Nesting beach identification, nesting parameter surveys, monitoring and mapping, nesting population estimates, nesting and emergence success
- Hatchling success studies, studies of predation on hatchlings, effects of artificial lighting, nesting beach alterations
- Foraging ground identification, surveys, monitoring and mapping, turtle capture
- Migration and distribution studies and mapping, studies of localised movements, habitat use and mapping
- Genetic analyses, tissue and blood sampling, extractions, PCRs, sequencing
- Chemical contamination and health studies, tissue and blood sampling
- Flipper, PIT and satellite tagging, satellite tracking, mark-recapture studies
- Population modelling and trends, stock demographics and structure, abundance estimates
- Necropsies
- Trophic analysis; stomach contents and stable isotopes
- Aerial and boat-based surveys
- Data analysis and reporting
- Direct and by-catch harvest research

Environmental Management

- Environmental Impact Assessments and monitoring
- Environmental impact mitigation advice and practical implementation, including light spill, chemical pollution, coastal development, boat-strike, noise, dredging impacts, sediment plumes and fishery-related impacts
- Threatened species assessment including advice on stock structure and management units
- Feral animal programme development and implementation
- Hatchery management

Planning, Strategy and Policy

- Technical and policy advice
- Environmental Plans and Plans of Management
- Impact mitigation strategies
- Independent review of reports, plans, strategy and policy

Training and Education

- Development and delivery of environmental training and educational material and packages
- Development and delivery of community-based workshops and educational material, and capacity building projects

Quality Reporting and Documentation

All documentation produced by BPM is comprehensive, tailored for each project and professionally presented. We can assist with a variety of reports including, discussion documents, reviews, management plans, strategic and advice papers. We can also produce educational packages and material.

OUR CLIENTS

BPM and the BPM Marine Turtle Team have worked on marine turtle projects with the following organisations:

Government

Australian: Great Barrier Reef Marine Park Authority • Department of Environment Water, Heritage and the Arts • Department of Sustainability, Environment, Water, Population and Communities • Department of Environment and Heritage Population • Department of Environment and Resource Management • Gold Coast City Council • NSW National Parks and Wildlife Service • Town of Port Hedland Council • Boigu Island Council • Torres Strait Regional Authority **New Zealand:** Department of Conservation Te Papa Atawhai **Fiji:** Fisheries Department **Other:** Qatar Government • U.S. Fish and Wildlife Service • Western Pacific Fisheries Management Council

Research


Australia: University of Canberra • Griffith University • University of Queensland • James Cook University **New Zealand:** University of Otago • Massey University **Hong Kong:** City University **Fiji:** University of the South Pacific

Business/Industry

Australia: Woodside Energy Ltd • Chevron Australia • Inpex Corporation • Pendoley Environmental **New Zealand:** Kelly Tarlton's Antarctic Encounter and Underwater World **Fiji:** Namale Resort **Hong Kong:** ERM

Non-government organisations

Environment Australia • Raine Island Corporation • Earthwatch • SeaLab Environmental Education Trust • Global Vision International • Field Services and Inter-cultural Learning India • WWF Fiji



Green turtle nesting
(photo: NOAA)

Blue Planet Marine (BPM)

Specialising in marine megafauna, BPM is a leading environmental research and consulting firm providing expert scientific service in the Australian, New Zealand, Asian, South Pacific, sub-Antarctic and Antarctic marine environments. Since the firm's inception in 2002, we have successfully completed over 100 projects for a variety of clients including research, government and non-government organisations, and the oil, gas and mining, and construction/development industries.

Our team of scientists are active researchers with vast experience in providing environmental services to a wide variety of clients. We seek to work across a range of clients, providing all with independent, unbiased, up-to-date, informed and accurate advice, information and services.

We maintain our competitive edge by investing in the training and mentoring of our people and in the development and use of the latest technology. We ensure that we stay relevant in management and conservation by conducting research and publishing our results in peer-reviewed literature.

BPM's headquarters are in Canberra, Australia. We have branch offices in Western Australia, New South Wales and New Zealand.

For further information about BPM, please visit www.blueplanetmarine.com.

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