The Sea Turtle Nesting Beach Indicator Tool
can rapidly assess and rank the
value of beaches for their potential
sea turtle nesting importance in areas
where biological data are absent.

Conservation at the University of Exeter, U.K., to draw on best available current knowledge of sea turtles worldwide to develop the Sea Turtle Nesting Beach Indicator Tool. This software tool can rapidly assess and rank the value of beaches for their potential sea turtle nesting importance in areas where biological data are absent. The tool is designed for developers, consultants, and researchers to quickly determine the spatial extent of turtle nesting and the relative habitat value of different beaches where sea turtle nesting is possible but is poorly understood.

The simplicity of the tool was considered a core aim rather than a weakness, and it derives from a philosophy of forming raindrops to create waterfalls, which means creating small ideas that can cascade into something much more powerful in a way that is not always possible with complex approaches. The designers hope that this easy-to-use tool will promote better early-stage decisionmaking by developers whose projects may impact turtle nesting areas. In addition, the tool can be valuable for pointing to beaches that have high potential for conservation and academic research, and data from the tool can feed into strategic assessments for marine spatial planning at broader scales. The tool was developed to avoid overcomplicated approaches that may not add value to the aims of the user; as such, data can be collected by nonscientists and local networks with little training, thereby creating opportunities to engage communities and to develop their capacity to collect such data.

The tool is built around an Excel spreadsheet supported by an explanatory document in PDF form and therefore is easily shared and disseminated by email. It employs a scoring and rating system to assess (1) beach suitability, which is the potential for supporting a viable nesting population on the basis of habitat features, (2) human impacts, and (3) how these affect nesting beaches. The tool provides *indicative* rather than *conclusive* results on nesting potential; indications of poor suitability for certain beaches should not be used as evidence that there is no nesting. As such, the tool is useful in lieu of and supplementary to seasonal surveys that record the signs of nesting activity. In most cases, the indications generated by the tool should be followed up by more rigorous surveys performed by specialists because the tool does not collect biological or seasonal information, nor does it rely on long-term datasets.

We are seeking the best collaborative way to manage the information generated by the tool. By doing so, we can create new datasets, which could help developers make better decisions and could support sea turtle conservation locally, nationally, and internationally. We are also seeking collaboration and funding to develop field-based pilot studies. The Sea Turtle Nesting Beach Indicator Tool is available for free download at www.bluedotassociates.com; please use it and share your feedback with us. ■

Sea turtle tracks are visible on a remote beach in northwestern Australia. © ROB RYAN

Rapid Assessment Tool
Helps Prioritize Nesting Beaches for Study and Protection

by NEIL COUSINS, ALAN REES, and BRENDAN GODLEY

Developers eyeing coastal locations for industrial ports, pipelines, hotels, or other major projects often need information quickly to make the best choices about where to site their projects for minimum environmental impact. Often there are little or no data available from long-term sea turtle monitoring to help inform these decisions, thereby forcing companies to take actions without fully knowing the potential hazards that projects may pose for sea turtles and their habitats. And sometimes, when data do exist, they can improperly bias decisions about where development should occur. Misinterpretations of such data may arise when turtle presence is assumed only for areas where data exist and "no data" beaches are incorrectly categorized as "no turtles" beaches.

Also, collecting field data can be slow and can require significant resources that may be lacking in project planning stages; there may also be a lack of local capacity to conduct studies, and sometimes a robust understanding requires seasonal data collection that does not align with developers' time lines. Often project decisions are postponed until robust levels of information are collected in line with a "certainty-oriented approach," thereby forcing developers ultimately to rely on strategies to minimize or restore and offset development impacts after the damage is done rather than to avoid impacts in the first place.

Data uncertainty requires more precautionary approaches that can be facilitated by rapid environmental assessments employing predictive analyses. Rapid assessment of priorities (RAP) initiatives have indeed become important in recent decades for a variety of conservation applications, from rainforest protection (for example, "hotspots" and other priority ecosystem approaches) to marine managed area definition.

Bluedot Associates, an international environmental consultancy in Bristol, U.K., has partnered with the Centre for Ecology and