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BIOTROPICA
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A. **TITLE PAGE**

Title: **Decolonizing Field Ecology**

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B. **ABSTRACT PAGE**

There is no abstract for Commentary papers.

C. **KEY WORDS**

Fieldwork; Postcolonialism; Collaboration; Engaged Research; Community; Ethics; Objectivity; Positionality

D. **TEXT**

WHAT RELATIONSHIPS DO VISITING FIELD RESEARCHERS HAVE WITH THEIR TROPICAL HOST COUNTRIES? Ecologists from the Global North often justify their research agendas by reference to dominant paradigms, with their work adding to the understanding of tropical systems globally. But often research priorities are not aligned with the interests of the host countries, either in terms of the focus or the roles played by participants. In this sense field research can be a colonial exercise, in which an incoming set of established researchers impose an agenda and set of practices that reflect uneven power dynamics. Ecologists from the Global North must critically examine the ways in which they conduct fieldwork and how they relate to and reinforce existing inequalities.

Within the humanities and social sciences, a growing recognition of this issue has led to calls to "decolonize" research practice by interrogating and seeking to move away from European modes of knowledge production (see e.g. Radcliffe 2017). While a process of collective reflection on decolonizing has altered the way in which research is planned, conducted and presented in fields such as human geography and anthropology, the discussion has yet to percolate through the ecological sciences. Periodic attempts have been made to prompt this reflection among tropical biologists (e.g. Raby, 2017; Toomey, 2016), though to date the impact of these calls has been relatively modest**.** The objective of this commentary is therefore to bring current debates on decolonizing research practice into contact with field ecology.

Postcolonialism, the body of cultural and literary critique that interrogates the pervasive legacies of colonialism, has been a staple perspective in a variety of disciplines including history (Grove, 1996; Raby, 2017), political ecology (Biersack, 2006), and human geography (Robinson, 2003) since the early 1990s. More recently, focus has sharpened from postcolonial critique to decolonizing the practices of knowledge production (e.g. Noxolo, 2017; Radcliffe, 2017). These debates, however, remain relatively bounded to human geography and cognate disciplines (such as anthropology) and there remains little

engagement from those working on the natural or physical environment. Here we summarize the current debates on decolonizing research practice for the readers of Biotropica; the 50th anniversary of the journal's publication is an opportune moment to both demystify this issue and advocate for its adoption its community of readers.

Some may seek to excuse the relative absence of ecologists from post- and de-colonial discussion on the basis that ecological systems are conceived as part of the physical world, and therefore distinct from the human histories of European and US imperialism. However, colonialism was (and remains) a project of domination over physical space, a mastery in which Victorian-era geographers and later ecologists played a significant role (Driver, 2001). Ecologists from Europe undoubtedly benefited from the access to land afforded by colonialism in the establishing of permanent study stations for long-term field research (Raby, 2017). The present-day geographic distribution of tropical ecological research reflects this, with a greater number of North American ecologists working in central and south America and Europeans predominantly working in Asia and Africa (Raby, 2017). In these regions and their study stations, key theories and values have developed, forming the foundation of ecology and related disciplines (Grove, 1996).

Acknowledging a colonial legacy to research in the tropics, with the aim of bringing current debates on decolonizing research practice into contact with field ecology, we offer three areas of focus to stimulate thought on decolonizing field ecology: i) scientific objectivity; ii) local knowledge and collaboration; and iii) researcher positionality.

OBJECTIVITY

A central concern of postcolonial writing is the way in which a perceived 'neutral' authorial voice from the Global North analyses and 'objectively' represents the people and places of formerly colonized areas of the world. The Indian scholar and theorist Gayatri Spivak questioned the role of a 'First World[1] analyst' who 'masquerad[es] as the absent non representer' (1988, 292), arguing that claims to 'objectivity'

[1] 'First World' is used in this paper in the context of Gayatri Spivak words, the authors of this paper prefer to use 'Global North'

ignore the historical effects that influence (scientific) authority and that the subsequent claims to knowledge – from the "First World" - returns the postcolonial South to a 'resource' for exploitation (1999, 388). Spivak thus draws connections between the colonial practices of extraction – of land (raw materials) and people (labour and slavery) – and contemporary modes of knowledge extraction where our knowledge of a diverse world remains entrenched in narrow post-Enlightenment frames of scientific "objectivity".

For a "First World" ecologist (sensu Spivak 1988) this presents a challenge to current research practice. Being objective is central to notions of "good science", and the extraction of resources (ecological data) from the postcolonial South is most often followed by supposedly objective intellectual labor from our offices in the Global North. Accordingly, we must consider how our data – most of it quantitative – carries a trace of our interpretive frames (see Scott 1999). Werner Heisenberg asserted that 'what we observe is not nature itself, but nature exposed to our method of questioning' (1955). Infusing such a philosophy of science with decolonial critique means careful consideration of how nature is constructed through the choice of measurements taken and, consequently, those which are not, and what the predominance of one body of collected data means for the myriad of others that are left behind – numbers are never innocent (see Sayer 1984). However, even if a diverse dataset is amassed, we might then ask, so what? This is not to advocate for an anthropocentric form of ecological science, but to raise questions about the ethics of studying ecological patterns without dealing with the realities of those – often poor, often marginalized – communities that are always the most vulnerable to ecological threat. Ecologists should therefore commence study by consulting participants, which could be local communities or local scientists, on how outcomes can be aligned to local concerns, and build these in from the outset. We can thereby ensure that our promises in impact statements are rooted in local needs and can be used to effect meaningful actions on the ground.

LOCAL KNOWLEDGE AND COLLABORATION

Ecologists from the Global North often describe distant field sites as "remote". They are not: they are only "distant" and "remote" from a Eurocentric or North American perspective. In fact, in the majority

of such field sites the presence of people tells us that remoteness is actually "home" and our research rests on exchange and collaboration. Turning attention to local knowledge requires us to consider in full the meaning of ecological field sites and relations to space and place. Links between western science and local communities have focused on science dissemination or local people taking on roles such as fieldworkers (Toomey, 2006; Malhado, 2011). Recent years have brought calls for a greater focus on co-creation and collaborative research in the tropics (Stocks et al., 2008; Toomey, 2006) but while some successful participatory models have been documented, they remain on the margins of established methodologies. A more decolonized approach would imply a research culture in which local scientists take the lead in designing and implementing studies, and in which outsiders from the Global North act as supporting collaborators.

In the consideration of measurements and methods, our scientific instruments 'do more than simply record the presence of land as a resource: they are integral to assembling it as a resource for different actors' (Li, 2014, 589). As we take field measurements, we render locations legible to the discourses of science – extracting information about the Latin names of species and their relative abundances – but at the same time we obfuscate other ways of interpreting and using the land, and how it constitutes place for (especially) local people. This is not to suggest that ecologists should forego research to understand and conserve species and habitats, instead it is to recognize that the natural environment does not exist in a vacuum. Ecologists routinely "write out" local people and communities, which may be considered unethical on two counts. Firstly, science tells only a partial story that disregards – and therefore silences – local and indigenous knowledges. Secondly, the writing out of communities in research outputs and teaching neglects to recall that the research would not be possible without the logistical help, hospitality and geographical knowledge of local people. This was the case, for instance, in the research of one of the authors (K.B.) whose collaboration and reliance on local field assistants was not given enough prominence (Baker et al., 2016, 2017).

In this way, many disciplinary norms are complicit in the reproduction of colonial-era relations. There are some moves by ecologists to acknowledge such complicity: The Intergovernmental Science-

149 Policy Platform on Biodiversity and Ecosystem Services (IPBES) has now included indigenous and local
150 knowledges in their assessments of the state of ecosystems and services, and a recent panel discussion at
151 the 2018 conference of the Association for Tropical Biology and Conservation highlighted that scientists
152 from outside arrive in poorer parts of the world with preconceived conservation values that demean local
153 knowledge and traditions (Gokkon, 2018). Several papers in *Biotropica* have reflected on biases in the
154 composition of contributing authors (Stocks et al., 2008; Cayuela et al., 2017), and provided suggestions to
155 improve engagement and knowledge exchange with local stakeholders (Duchelle et al., 2009; Perez and
156 Hogan, 2018). In a similar vein, political ecologists, who are interested in the relationships between
157 political, economic and social factors with environmental issues and changes (Biersack, 2006), have
158 explored the social impacts of protected areas and conservation practices, demonstrating that environmental
159 conservation can lead to 'winners and losers' (Brockington et al., 2008) with the losers usually being the
160 rural, indigenous and poor (Ybarra, 2017).

161 Criticism from thinkers in political ecology has often been met by skepticism (or even hostility) by
162 conservationists and ecologists (Brockington et al., 2008) who do not see any problem with their current
163 fieldwork practices and engagement with local communities. Ethical concerns should be constructively
164 engaged with; they can stimulate thought of how indigeneity to place necessitates rich bio-cultural
165 knowledges – 'an ever-changing array of other ways of knowing and doing' (Briggs and Sharpe (2004,
166 673) - and can contribute positively to our understanding of ecological systems (Endicott, 2016). Engaging
167 with such knowledges would make research relevant to those who live in the sites under study (see
168 Overdevest et al., 2004; Whitmer et al., 2010). If ecologists neglect to incorporate these perspectives, and
169 to reflect work through local idioms, then research will fail to reach the very people it purports to represent.
170

171 **RESEARCHER POSITIONALITY: WHAT CAN I DO?**

172 Positionality is a mature ethical research in human geography given that exchanges with people are
173 a necessary product of their research. Although for ecologists dealings with people are mostly logistical,
174 these issues cannot be entirely elided. An ethical issue for human geographers is the extent to which 'local'

175 voices are appropriated and mobilised to the ends of ‘high-impact’ research publications. Accordingly,
176 scholars have sought to move away from models of ‘speaking for’ others towards different approaches -
177 ‘talking back’ (hooks 1989), ‘being with’ (Probyn 2010) and ‘abiding by’ (Ismail 2005) - that each attempt
178 to incorporate the voices of the people and communities (including local scientists) that inform and facilitate
179 their research (see Griffiths 2018). These models and approaches are imperfect but nevertheless address the
180 issue of how perspectives from the South are included or excluded from research outputs.

181 To describe research as if carried out from a neutral perspective is to pretend to a ‘view from
182 nowhere’ (see Shapin 1998) that has been robustly critiqued by both feminist (Haraway 1988) and
183 postcolonial writers (Spivak 1988). Instead researchers should act to make visible the structural privileges
184 that are integral to the production of knowledge. It matters what passport we carry, the colour of our skin,
185 our assigned sex, where we work and study, and the language we speak, because their perceived status is
186 tied to histories of colonial domination and exploitation. This is true, of course, for this commentary: we
187 each owe our ability to be heard to desirable passports, whiteness and affiliations to prestigious European
188 institutions. We are thus situated within the skewed geographies of knowledge production in which the
189 overwhelming majority of submissions to this journal and the *Journal of Tropical Ecology* are made by
190 lead authors based outside of the country in which research is conducted (see Stocks et al. 2007). Ecologists
191 should consider how race (Besio 2003), gender (England 1994) and social class (Griffiths 2017) enable or
192 hinder the processes of research.

193 There is no ready solution but one method from humanities research, and one that we have chosen
194 to use below, is a positionality statement that explains something of the power relations that made the
195 research possible. A further step could be a more meaningful approach to acknowledgements that goes
196 beyond a generic appreciation of ‘local staff’. Where essential intellectual input has come from local people,
197 there seems little reason not include them as co-authors (e.g. Moore et al., 2016), though this in itself is
198 insufficient. There are some positive examples of new authorship models that avoid the whole issue of lead
199 authorship (See DRYFLOR, 2016 and LPWG, 2017). We should also be ready to build the capacities of

200 those who are not able to access the educational and publishing platforms based in the Global North and
201 collectively work towards a day when capacity-building is no longer necessary.
202
203 **CONCLUSIONS**
204 In this commentary we have sought to connect tropical ecologists and conservation biologists with
205 literature from human geographers, political economists and historians of science on the topic of
206 decolonizing research practices. We hope that this initial exploration of the areas of objectivity, local
207 knowledge and positionality can provide a platform for ecologists to reflect on the design and conduct of
208 field studies. Questions to ask may include: how many local scientists are involved in collaboration or co-
209 creation? Are the local scientists also authors on the published work? Who has access to and interprets the
210 resulting datasets? Who applies knowledges? Consideration of such questions should be undertaken
211 alongside – and led by – partners at field sites, from researchers and practitioners in the Global South to the
212 communities whose lives can depend on ecological systems. Only through such critical examination can
213 ecologists recognize and reduce uneven power relations in research practices and thus work towards a
214 decolonized approach to fieldwork in tropical host countries.
215

216 E. **ACKNOWLEDGMENTS**
217 Thank you to the British Ecological Society for organising a workshop in June 2018 to discuss all issues
218 connected to conducting field research which two of the authors (K.B., M.P.E.) attended. The Department
219 of Geography at King's College London is thanked for investing in its PhD community where two of the
220 authors studied together (K.B., M.G). The foundations of trust and understanding built during this time
221 enabled this paper to be written. Working across disciplines requires institutions to invest in scientific
222 community engagement for the benefit of research. We thank the two reviewers for thoughtful comments
223 which greatly improved the manuscript.
224

225 POSITIONALITY STATEMENT

226 The three authors are academics based at European universities and have research interests in a number of
227 tropical countries. K.B. is a geographer who has conducted aquatic field research in Negara Brunei
228 Darussalam. Reflections on this issue were triggered after realising that the literature being produced by
229 social scientists, environmental historians and cultural geographers on the topic of decolonizing research
230 was not being engaged with ecologists or physical geographers. This lack of engagement was causing
231 frustration and a divide between the disciplines. M.P.E. is a forest ecologist who has worked with orang
232 asal peoples in Malaysia. His reflections were triggered by Tok We, senior shaman of the Che Wong group,
233 who remarked that although he had worked with many international researchers, nothing had ever changed.
234 M.G is a human geographer whose work focuses on the ethics of fieldwork in the Global South. He is a
235 British citizen whose work in India and Palestine recognises and interrogates the colonial histories that are
236 detectable in contemporary political struggles in both states.
237
238
239

240 F. **DATA AVAILABILITY STATEMENT**

241 There is no data used in this study

242

243 G. **LITERATURE CITED**

244 BAKER K, CHADWICK MA, KAHAR R, SULAIMAN Z, WAHAB RA. 2016. Fluvial biotopes
245 influence macroinvertebrate biodiversity in South-East Asian tropical streams.
246 Ecosphere 7:12.

247 BAKER K, CHADWICK MA, WAHAB RA, KAHAR R. 2017. Benthic community structure
248 and ecosystem functions in above- and below-waterfall pools in Borneo.
249 Hydrobiologia 787(1):1–16.
250 BESIO K. 2003. Steppin' in it: postcoloniality in northern Pakistan. Area 35: 24–33
251 BRIGGS J. 2005. The use of indigenous knowledge in development: problems and challenges.
252 Progress in development studies *5*: 99-114
253 BIERSACK A. 2006. Reimagining Political Ecology: Culture/Power/History/Nature Biersack,
254 A. and Greenberg, J.B. eds., 2006. Reimagining political ecology. Duke University
255 Press.
256 BROCKINGTON, D., DUFFY, R. IGOE, J., 2012. Nature unbound: conservation, capitalism and
257 the future of protected areas. Earthscan London
258 CAYUELA, L., GRANZOW-DE LA CERDA, Í. MÉNDEZ, M. 2018. The state of European research
259 in tropical biology. Biotropica, 50: 202-207.
260 DRIVER F. 2001. Geography militant: cultures of exploration and empire. Oxford, Blackwell.
261 DRYFLOR. 2016. Plant diversity patterns in neotropical dry forests and their conservation
262 implications. Science, 353:1383-1387.
263 DUCHELLE, A.E., BIEDENWEG, K., LUCAS, C., VIRAPONGSE, A., RADACHOWSKY, J., WOJCIK,
264 D.J., LONDRES, M., BARTELS, W.L., ALVIRA, D. KAINER, K.A. 2009. Graduate
265 students and knowledge exchange with local stakeholders: Possibilities and
266 preparation. Biotropica 41:578-585.
267 ENDICOTT, K. 2016. 'Introduction', in ENDICOTT, K. M. (ed.), Malaysia's Original People:
268 Past, Present and Future of the Orang Asli. Singapore, NUS Press: 101-122.

ENGLAND, K. 1994. Getting personal: reflexivity, positionality, and feminist research. The Professional Geographer 46: 80–9

GOKKON, B. 2018. Implicit gender, racial biases may hinder effectiveness of conservation science, experts warn. Mongaby, 1 October 2018.

GRIFFITHS M. 2017. From heterogeneous worlds: western privilege, class and positionality in the South. Area 49: 2-8.

GRIFFITHS, M. 2018. For speaking against silence: Spivak's subaltern ethics in the field. Transactions of the Institute of British Geographers 43: 299-311.

GROVE, R.H. 1996. Green imperialism: colonial expansion, tropical island Edens and the origins of environmentalism, 1600-1860. Cambridge University Press.

HARAWAY, D. 1988. Situated knowledges: The science question in feminism and the privilege of partial perspective. Feminist studies *14*: 575-599.

hooks, b. 1989. Talking back: thinking feminist, thinking black. South End Press, New York

ISMAIL, Q. 2005. Abiding by Sri Lanka: on peace, place, and postcoloniality. University of Minnesota Press, Minneapolis

LI, T. M. 2014. What is land? Assembling a resource for global investment. Transactions of the Institute of British Geographers. 39: 589-602.

LIVINGSTONE, D. 1992. The geographical Tradition: Episodes in the History of a Contested Enterprise. Blackwell, Oxford

LPWG, 2017. A new subfamily classification of the Leguminosae based on a taxonomically comprehensive phylogeny The Legume Phylogeny Working Group (LPWG). Taxon. 66: 44-77.

291 NOXOLO, P. 2017. Introduction: Decolonizing geographical knowledge in a colonized and re-
292 colonizing postcolonial world. Area 49: 317-319.
293 OVERDEVEST, C, HUYCK ORR C, STEPENUCK K. 2004. Volunteer stream monitoring and local
294 participation in natural resource issues. Hum Ecol Rev 11: 177–85.
295 PEDWELL, C. 2008. Weaving relational webs: Theorizing cultural difference and embodied
296 practice. Feminist Theory *9*: 87-107.
297 PEREZ, T.M. HOGAN, J.A. 2018. The changing nature of collaboration in tropical ecology and
298 conservation. Biotropica 50: 563-567.
299 PROBYN, E. 2010. Introduction: researching intimate spaces. Emotion, Space and Society 31–
300 3
301 RABY, M., 2017. American Tropics: The Caribbean Roots of Biodiversity Science. UNC
302 Press Books.
303 RADCLIFFE, S. A. 2017. Decolonizing geographical knowledges. Transactions of the Institute
304 of British Geographers 42: 329-333.
305 ROBINSON, J. 2003. Political geography in a postcolonial context. Political Geography 22:
306 647-651.
307 ROSE, G. 1997. Situating knowledges: positionality, reflexivities and other tactics. Progress
308 in Human Geography. 21: 305–20
309 SAID, E. 1984. Permission to narrate. Journal of Palestine Studies. 13: 27-48.
310 SAYER, A. 1984. Method in Social Research: A Realist Approach. London: Hutchinson.
311 SCOTT, J.C., 1998. Seeing like a state: How certain schemes to improve the human condition
312 have failed. Yale University Press.

SHAPIN, S. 1998. Placing the view from nowhere: historical and sociological problems in the location of science. Transactions of the Institute of British Geographers 23: 5-12.

SPIVAK, G. 1988. Can the subaltern speak? In Nelson C & Grossberg L (eds) Marxism and the Interpretation of Culture. University of Illinois Press: Chicago, IL 271-316.

STOCKS, G., SEALES, L., PANIAGUA, F., MAEHR, E. BRUNA, E.M. 2008. The geographical and institutional distribution of ecological research in the tropics. Biotropica, 40: 397-404.

TUCK, E., & YANG, K. W. 2012. Decolonization is not a metaphor. Decolonization: Indigeneity, education & society 1:1.

WHITMER, A., OGDEN, L., LAWTON, J., STURNER, P., GROFFMAN, P.M., SCHNEIDER, L., HART, D., HALPERN, B., SCHLESINGER, W., RACITI, S. AND BETTEZ, N., 2010. The engaged university: providing a platform for research that transforms society. Frontiers in Ecology and the Environment 8: 314-321.

YBARRA, M. 2017. Green wars: conservation and decolonization in the Maya. University of California Press, Berkley.

H. TABLES

No Tables

I. FIGURE LEGENDS

No Figures

J. FIGURES

No Figures

K. **SUPPORTING INFORMATION**

No supporting information