



PROFILES IN SCIENCE ENGAGEMENT WITH FAITH COMMUNITIES

Kit MAGELLAN

Kit Magellan is a Visiting Professor of Aquatic Ecosystems at the University of Battambang in Battambang City, Cambodia. We spoke with her about the importance of community partners, taking full cultural context into account, and improving your science by approaching research with cultural humility. All photos courtesy K. Magellan.

You study mercy release in Cambodia; tell us about the practice and its potential conservation impacts.

Mercy release is a predominantly Buddhist tradition whereby animals are released for good karma, long life, because your relative is sick, or something similar. It's thought to be good for the animals and the environment, but it isn't. Animals have to be obtained from somewhere; they die during capture, transport, and holding; they're often released into unsuitable environments. Often there's no discrimination between species, so they can be invasive species, which are devastating to environments.

We're trying to persuade Buddhists to change the way that they're carrying out this practice. And I have to emphasize—we don't want this practice to stop. We want this practice to continue, because it was a compassionate thing and it still is. It's just the way it's done is no longer sustainable and hasn't been for a very long time.

In Taiwan around 2004, it was estimated that \$6 million was spent on releasing 200 million animals every year. There's a temple in Vancouver that is estimated to have released 25,000 pounds of sea creatures over 13 years. And a lot of that would be tiny, light weight things like larvae or small bivalves—probably a billion animals released into the Pacific Ocean.

We're in the middle of our current project, so I don't have final data, but very broadly, here in Cambodia, there are around 16 million people. The prevalence of mercy release, also called prayer release, must be about 95%; it's rare to meet somebody who doesn't do it. About 50% of those people do it once per year, another 40% do it once per year plus other times like if their mother is sick, or it's their grandmother's anniversary, or something similar. And some people are doing it all the time. Taking into account family groups, even if each of these people released just one animal per year, a very conservative estimate is 10 million animals potentially being removed from the ecosystem or causing additional damage to the ecosystem, each year. And that is just Cambodia.

How did you come to study mercy release, and who is working on this with you?

Our overall project is called CAMRAN, Conservation and Mercy Release Asia Network. We have maybe 20 people now from 10 or 11 countries, mostly in Asia and Southeast Asia but also people in the States and in the UK. Between us, we come up with projects to try to address mercy release practices. I got into this because I was an editor for an invasion journal, and we had a paper submitted that mentioned mercy release as a factor for introducing invasive species. I'd never heard of this before, and no one else had either. When I moved to Asia, I

thought, "Well, I'm in Asia now, surely I can find out." But most people either did not know what it was, or were saying, "Oh no, that's not important." They were telling me, "Don't worry about religious people. You can't work with them; they're fanatics. We'll just ban it," which is not the way to work with people.

For the current project, there's me, and then the co-PI on this project is Chantal Elkin from the Alliance for Religions and Conservation (ARC), which is now part of the WWF. And then we have two partners in Vietnam who are collecting data, and another partner within Cambodia. One of the Vietnamese people is Huyen Thi Thanh Do, who is the founder and CEO of an NGO, GAIA Nature Conservation (www.gaiavn.org), that tries to promote the natural environment in everyday life. The other Vietnamese person is an invasion ecologist, Do Van Tu from the Institute of Ecology and Biological Resources, who's looking at it from the invasion point of view, same as me.

To give some perspective, this is the first time I've done anything like a community science project. It's not my thing; I like working with animals and I don't particularly want to work with people because it's very complicated. But I'm doing this because the attitude of scientists tends to be, "Well, we can't deal with those [religious] people." And as it turns out, I'm finding that many scientists are a lot more fundamental and biased than religious people are. Religious people tend to be willing to listen and to talk, whereas scientists tend to be, "Oh no, there's no point. Not doing that."

The vast majority of Cambodians are Buddhist. How did you start to form relationships with the communities you want to engage?

The ARC has current and past projects here, and Chantal Elkin has worked here before. She had the original contact within the religious communities. But as it's worked out, we haven't actually involved the original religious communities, apart from once when I went to meet them. Instead, each of our project partners has interviewed people—monks and nuns and the general populace—that they

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Ecologist Do Van Tu interviewing a vendor near the Huang Pagoda, Ha Noi, Vietnam.

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have approached themselves. So I have found that the initial contact wasn't that important, but that's not been much of a surprise in Cambodia. As I'm learning, religion is just part of the culture. It's like if I ask somebody if they're Buddhist; it's the same as if I asked them, are you human? Well, of course I'm human. Of course I'm Buddhist; I'm Cambodian.

So for me, the biggest thing I needed to learn was how to work with Cambodian people, rather than how to work with religious people per se. A lot of the advice that people will give for working with religious people here isn't useful. For example, I've been told that a woman should not look at a monk and should always look down, and a woman shouldn't touch a monk. That's sort of true, but I'm talking with monks, and they want to know what I think, so I have to look directly at them, which doesn't seem to cause any offense.

And as well, even though most people like to talk about themselves, here, everything's so obvious that people don't talk about it. I have to ask specific questions if I want to know how to interact in a specific circumstance. And much of it is learning by doing, so if I do something once or twice and it's clearly not going down well, then I change the way I'm doing it. There's also very much an attitude of, "Well you're a Westerner, so you're already strange, so it doesn't really matter if you're a bit weird here as well."

Have you seen changes in how mercy release is regarded among other scientists?

The biggest impact I've seen goes back a few years to when I started this project. When I first moved to Hong Kong and started talking about mercy release, nobody knew what it was and no one wanted to fund research into it. And if I explained what it was, then the person seemed to think of the practitioners as "religious nuts." Then about two years later, before I left Hong Kong, I decided to apply for the same sort of funding again, and the attitude had completely changed to, "Oh yeah, that's really important." I don't want to claim the credit for myself, but the status quo had been there quite a long time, and then in just a few years people started talking about it.

I was invited to a symposium in Singapore on aquatic invasive species

in Southeast Asia in 2017. During one of the talks, someone in the audience asked the speaker, "What about mercy release? Is that happening now? What can we do about it?" And the speaker said, "Yes I'm sure it's happening, but all we can do is just ban it." When it was time for my presentation, I asked permission of the organizers to cut my talk short and talk a bit about prayer release so that I could get the right point across. I told people, "You cannot just ban it; look at these figures. This is too important for too many people." Now, three years later, the number of papers on the subject has doubled (and yes, I'm an author on several of them). And invasion ecologists are starting to consider whether mercy release is a factor in say, a particular turtle being introduced into a particular area.

What would you like to see happen as a result of this work?

First and foremost, dialogue and education. The reason we've done this project is that nobody knows the extent of this practice. There's a lot of anecdotal information, and some good information from Taiwan, but nobody's quantified it. Find out how big it is and what people's attitudes are, and then we can figure out how to address it.

The best things about this [CAMRAN] project, the things that I've learned, are just how to interact with Cambodian people, and also about people's attitudes towards mercy release in general and invasive species in particular. Once the data comes in and we can start analyzing it and really see the extent of this practice, I'm expecting that our results are going to be dramatic in terms of how much of an impact it's having.

Two things have become very clear. One is that people do not want to do bad. They believe that what they're doing is right, and they are shocked and horrified when I tell them that it isn't. They don't want to do something bad, but everybody believes it's good. If they really believed it was bad, they wouldn't do it. The second thing is that no one thinks it's about what they themselves are doing. Everybody thinks, "Oh well yeah, I can see that it is a problem, but I'm doing it right."

So, education has to be the next step. As a preliminary step, we're now trying to talk to the heads of temples and ask, "Would you be interested in taking part

in an education initiative?" The majority are very accommodating. Whether it will work or not, I don't know, but it's a starting point.

The ultimate plan is to change the way people are doing this so that it becomes a benefit to the environment and not a detriment like it is now. But change doesn't happen overnight; you have to do it in little steps. A first step is shocking people with how bad it is, and then the next step will be trying to educate people. For example, in Vietnam, it's illegal to buy or sell invasive species. People know that, and they don't want to break the law, but they don't actually know which species are invasive. I think if we can get more ecological knowledge across and try and make it more personal, then we might be able to make some progress. Like saying to people, "Actually, this is you doing this—think about what you're doing. Others are doing it too, but you can change how you do it."

What advice would you give someone interested in doing something similar?

Try and get their head around the concept of cultural humility. It takes a long time to learn something like that. I've been fitting into communities all over the world for 20 years, and even I come into a situation assuming I already know quite a lot. Fortunately, I've done it enough to realize quite quickly that I don't actually know that much. A lot of people only visit these places on field work and aren't understanding where they're visiting. They will come in and assume that because the local people

don't have the same level of education, that the local people are inferior. Drop your attitude, people.

How has working with others on mercy release affected you and your science?

What I haven't said is how enjoyable it has been. This has been a big bonus and very beneficial for me as a scientist. I do not do social science; I'm not interested. But I've learnt a huge amount working with social scientists. It's improved my science, for sure, just being able to incorporate different perspectives. I haven't switched disciplines—this work is helping me with my science. It's not either-or; you can do it all together.

I mean, it's been great, honestly. Very frustrating, as well, and at times soul-destroying when I think about, "Come on, look at what you're doing; change it please!" But also very rewarding.

And the achievements, also. I've had a student doing a lot of the work, and he started to give input like, "Why don't I go and interview at this place?" "Do you think this will be a good idea?" That was an achievement, because he was starting to think about it. Helping the student be able to think about data in terms of how they're going to analyze it is an achievement. Talking to a monk who is thinking about the problem of plastic pollution and how he can address it in his monastery, that's an achievement. And I've been learning how they're doing it so that then perhaps I can try and apply it somewhere else. ~

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Some of the animals for sale from licensed vendors for mercy release at the Royal Botanical Gardens, Siem Reap, Cambodia.

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