Research: It's more than just the science

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When putting together a team of scientists to work on a problem, it makes sense to bring together the best and brightest in the field, right?

Well, maybe not.

In a newly published paper, a team of researchers from institutions across the country, including Michigan State University, outline not only why it's important to pursue science collaboratively, but how to create and maintain science teams to get better research results.

Lead author Kendra Cheruvelil, an associate professor in MSU's Lyman Briggs College and Department of Fisheries and Wildlife, said equally important to team members' scientific knowledge is whether they can communicate well, are socially sensitive and emotionally engaged with each other.

"In other words, better science gets done when people put their egos aside, when they like each other, when they come from a wide range of backgrounds, and when they know how to effectively talk to each other," she said. "This may sound obvious to some, or not important to others. But based on the studies that we compiled, these factors are quite critical to the success of many types of teams."

Writing in the publication *Frontiers in Ecology and the Environment*, published by the Ecological Society of America, the multi-institutional team says that scientists can learn much from the fields of business and education where researchers have studied how teams work for years.

"We thought it was time to take what has been learned from studying business and education teams and apply it to science teams," Cheruvelil said.

So how should this happen? For starters, future scientists can learn the ways of collaboration when they start learning the intricacies of scientific research – in graduate school.

"Students need to learn how to work with others in order to produce high-impact research products," the team writes. "One way to meet this need is for graduate programs to offer seminars, workshops or entire courses on how to effectively collaborate in science."

The researchers also suggest that formal team-building exercises that focus on developing the skills needed to be a good team member and leader, such as conflict negotiation, effective communication, and time management, can promote collaborative scientific research.

Provided by Michigan State University