Not all wetlands are created equal

By Rachel Nuwer, New York Times

To many, it’s a familiar scenario: a strip mall suddenly pops up in what was once a desolate quagmire or boggy boondock.

But people are coming to realize that these seemingly wasted plots where land meets water provide a valuable ecological service. In addition to nurturing biodiversity, wetlands purify water, produce fish, store carbon dioxide that would otherwise contribute to global warming, and protect shorelines from floods, storm surges and erosion.

Since the early 20th century, development has claimed over half the wetlands in North America, Europe, Australia and China. To repair the damage from those construction binges and regain the benefits of wetlands, restoration has become a booming business.

Yet new research calls into question whether manmade versions can ever compensate for wetlands buried beneath parking lots and subdivisions. In an article published on Tuesday in PLoS Biology, scientists write that restoration efforts often fall short of returning wetlands to their former biological complexity and functioning.

“In traditional restoration, people repair hydrology, put in some plants, and after a few years say the wetlands are good,” said David Moreno-Mateos, a wetland ecologist at the Jasper Ridge Biological Preserve at Stanford University and the lead author of the paper. “But if you look at what’s really going on down there, you see the processes are not recovering.”

“One of the results from this study is that we need to undertake more specific restoration measures focused on

recovering processes, not just nice, beautiful wetlands with ducks,” said Dr. Moreno-Mateos, who conducted the research at the University of California, Berkleley.

Read the whole story