

# Marsh Bird Lockup

by  
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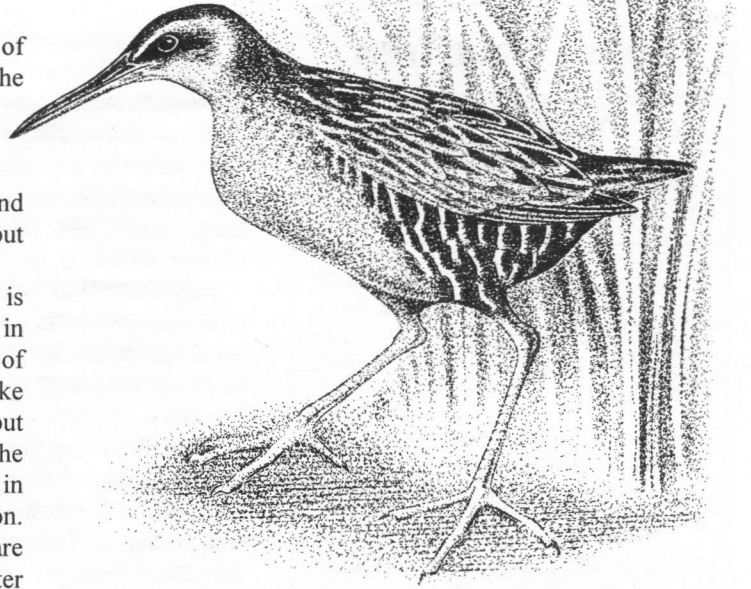
Birders of long experience will tell you that many species of marsh birds are in decline in southern Ontario. Species like the Pied-billed Grebe, King Rail, Sora, Common Moorhen, Black Tern, Green Heron, American Bittern and Least Bittern are all much less numerous than I remember them thirty years ago. Loss of marsh habitat to agriculture and urbanization is part of the reason there are fewer marsh birds, but it is certainly not the whole story!

Why are Ontario's marsh birds in decline? The answer is that many of our best marshes are old and stagnant. They are in a stage called *lockup* where the vegetation is dense and most of the nutrients are stored in organic plant matter. Marshes like forests go through stages of succession to a climax condition, but young marshes are much more productive than old marshes. The problem is that too many marshes around the Great Lakes are in the old or *lockup* stage, having filled in with thick vegetation. The once productive marshes of Point Pelee and Presqu'île are now a sea of crowded cattails with very few areas of open water for birds. Contrast these marshes with the St. Clair National Wildlife Area and Tiny Marsh Provincial Wildlife Area where water levels are managed. At Tiny Marsh, Least Bitterns, Black Terns, Pied-billed Grebes, Virginia Rails and Soras are almost common; they are all indicators of a healthy marsh. Think of some of the best marshes for birds in North America: Delta and Oak Hammock marshes in Manitoba, Montezuma in New York State and Bombay Hook in Delaware. The one thing all these marshes have in common is that their water levels are managed. Management is a nasty word with many birders and naturalists, but we cannot deny that it works and is needed in some areas. For example, most of the remaining King Rails in Ontario are now in managed marshes.

In the past, catastrophic events like floods and fires set back succession by opening up marshes and releasing many of the stored up nutrients to other plants and animals. Water level fluctuations and fire increase biological diversity and enhance habitat conditions for more species. The ideal marsh for birds is a young marsh called the *hemi-marsh* stage where there is an interspersed of 50 percent vegetation and 50 percent open water. After about 10 years, young marshes begin to stagnate and after 30 years they fill in with thick vegetation.

Today, water levels on the Great Lakes are controlled for navigation, hydro power and to prevent flooding and erosion. A dam at Sault Ste. Marie controls the water level of Lake Superior. This dam also indirectly controls the water levels of Lakes Huron, Erie and Ontario by releasing more water during dry years and holding back water in wet years. Another dam on the St. Lawrence River directly controls the level of Lake Ontario. The main effect of these dams is to even out the peaks and valleys and stabilize water levels that would have flooded or dried out marshes in the past. As well, many marshes have been ditched and diked, creating stable water levels. The natural fluctuations in water levels that once set back the stages of succession and rejuvenated marshes are gone forever.

In summary, stable water levels and lack of fires (the role of fire is less clear) have resulted in unproductive marshes. Too



King Rail  
Drawing by Michael King

many of our marshes are in the *lockup* stage and marsh birds are locked out! To restore marshes to earlier successional stages and *hemi-marsh* conditions, we must mimic natural cycles by managing water levels and allowing fires to burn, creating a diversity of habitat conditions that benefit a wide range of species.

Many marshes are now being managed by non-government groups. In the future, birders must play a bigger role in advising and supporting wetland managers to manage for marsh birds. If birders want a stronger say in how things are run, we had better get on boards of directors. Our goal should be to increase biodiversity by having a better balance of young and old marshes in Ontario.

**Acknowledgements:** I thank Bill Crins, Rob Dobos, Dave Hawke, Tom Hince, Jean Iron, Chris Lemieux, Gary Mouland, Mike Oldham, Paul Pratt, Don Sutherland, Ron Tozer and Mike Turner.

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