

On the Importance of Inland Lakes

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A geographical anomaly, surrounded by vast plains of infinite blue, Michigan is best known for the water that hugs the outline of our mitten-shaped land: The Great Lakes. But while attention is drawn outward to our coasts, minds unable to resist the beauty of the meetings between land, water, and sky, another feature of our lovely state undeservedly fades into the background: Michigan's inland lakes. Boasting the greatest percentage of area claimed by water in the country with tens of thousands of lakes held within its boundaries, Michigan's land is graced with an abundance of land-locked waterbodies.

As if the glaciers left fingerprints on the land as they advanced and retreated ten thousand years ago, each Michigan inland lake is unique, harboring a set of unrepeatably properties. Some are so vast that, as you stand at the edge of the water, the land on the other side appears only as a thin green haze grazing the horizon. Others are so small and intimate the surface hardly breaks free of the shade of the surrounding trees. Some are pristinely clear, such that peering over the side of a boat or kayak offers an uninterrupted view into a cold watery world, through to the emerald green plants on the sandy bottom. Conversely, some are so full of life that a thick wall of flora blankets what lies beneath. Yet others exist in a quintessential balance between two extremes, a perfect combination of blue and green. All of them, when left untouched, exist as self-sustaining houses of life, a somewhat precarious balance between the functions of the living and the role of the inanimate, the gifts from the land and the ability of the water to receive them - each element having a distinct purpose. The smallest members of the aquatic world, those unseen by the unaided eye, tirelessly transform insentient nutrients and sunlight into energy to sustain their existence and manage their daily household responsibilities, inherently fueling the rest of the system. The more observable members, whether resident, migratory, aquatic, amphibious, or terrestrial, each perform an essential role in the intricate functioning of each magnificently complex waterbody, like cogs in a wheel. Plants purify the water, filtering out unwanted matter and absorbing surplus nutrients while imparting life-giving oxygen; fish act as multiform organic recyclers, assuming the parts of both predator and prey, keeping energy flowing through the network of life; beavers and ducks, inexhaustible ecosystem engineers, morph and transform the land into new niches into which organisms will settle; visiting shorebirds unknowingly carry with them seeds and eggs, introducing and exchanging life forms between lakes. Indeed, waterbodies are not discrete from the land around them; the water incorporates and uses the contributions of the surrounding watershed and gives back through its role in providing to land-dwelling beings - the land and the water are engaged in a co-dependent relationship.

While each Michigan inland lake is distinctive and self-sustaining, they are not selfish; every lake generously offers an endless range of benefits to both humans and nature alike. Most notably, they provide a home and resources for innumerable creatures. Many fish spend their entire lives in the protective sanctuary of their resident lake, sustained by the lake's products at each stage of life, creating beds out of the substrate and seeking refuge among the waving patches of green. Turtles and frogs placidly weave between the vegetation of the sunlit shallows. Birds fashion nests for their young on the shore or rest in the calm haven of the open water as they make their long migratory journeys. Macroinvertebrates reside in the substrate, many of

them awaiting their transition to their final earthly form. Small mammals, dependent on the food of the lake, live in nearby forests, bridging the gap between water and land. And not to be ignored are the myriad benefits lakes selflessly provide to humankind. The lakes nourish us physically, providing water and food, a primordial necessity for life. They operate as a protective buffer, absorbing the excess rainwater that threatens to flood the land and offering a reservoir of hope during the longest droughts. And no one who has sunk their hands into the soft sand or grazed their fingertips along the ripples of a wave can deny the spiritual benefits of being in the presence of an inland lake. The consoling feeling of being at a low point in the earth, cradled by a ring of land which yields to the boundaries of the water; the therapeutic properties of the smells and sounds of life, carried over the surface by an uninterrupted stream of wind; and the serene comfort of being fully engulfed in a blanket of still water, suspended by the forces of its wondrous properties – these experiences are unmatched by any other.

Our inland lakes are designed to be resilient, resisting the effects of change and elastically adapting to new standards, made wise by their experiences through time. This flexibility, however, is being stretched dangerously thin as the boundaries of stability are pressed, the system coming under stress. Unable to keep pace with the changing environment around them, they are beginning to unwillingly, reluctantly shift states, an irreversible affair if let gone too far. The surrounding land that once gave them nourishment now imports toxins. The trees that formerly shaded the banks against the heat of the sun are replaced by short, ineffectual grasses. Seawall unceremoniously severs the essential connection between water and land. The rivers that used to replenish the lakes now carry the sins of carelessness and neglect from upstream. Abundant native plants and animals have been purged from their homes and replaced with few, aggressive, unwelcome invasive guests. Plants and algae, once the life-givers of the network, now suffocate any life that dares to try to exist, fueled by an incredible imbalance in the ecosystem. And above all, the rapidly mutating state of our climate, which continuously hurdles towards uncharted, unknown territory, is the unstable foundation that impedes repair. The unevenly increasing temperatures, the shifting tides of our seasons, and the increasingly unpredictable weather patterns are all challenges to which inland lakes are slowly succumbing, unable to adapt, react, or resist quickly enough.

But there is hope. There is time to save our inland lakes. This is not a lost cause. But we must act now. The foremost step in a seemingly impossible, yet entirely doable, mission will be to engage humanity with its surroundings, create an empathic, compassionate mindset in which we see lakes not as tireless sources of endless goods and recreational opportunities, but as intricate and complex living entities that are in desperate need of our help lest we lose them. We must view ourselves not as the solution but as the cause of the distress, acknowledging and respecting Mother Nature's supernatural ability to right and maintain herself so long as we give her the tools and the time and the space to do so. Equally as important is fostering an understanding that lakes are not separate from land, but rather incorporate its characteristics, the good and the bad, acting as first responders, sentinels of change, and harbingers of what is to come. Our ability to coexist with the nature around us and engage in a reciprocal relationship will be tested shortly as time runs out to affect lasting change, but I believe in Michigan. I believe in our ability and innate desire to protect the natural resources of our watery wonderland – not just the Great Lakes, but all of them. There is hope. There is time.