Digging in: understanding the complexities of addressing excessive seaweed accumulation on Maine’s coastal beaches

The Beaches Conference

Keri Kaczor
UMaine Extension

July 14, 2017

Funding provided by: U.S. EPA/Maine DEP
Healthy beaches are valuable

Bell et. al. 2016  2016 MHB Survey Report, School of Economics, University of Maine

Gary Curtis
Disease-causing pathogens can enter Casco Bay coastal waters from multiple sources, leading to potential public health risks. Illustration by Waterview Consulting including symbols adapted from the Integration and Application Network, University of Maryland Center for Environmental Science.
Seaweed invasion poses challenges

By Deborah McDermott
dmcdermott@seacoastonline.com

Posted Aug. 4, 2015 at 10:12 PM

YORK – Seaweed. In the middle of sun York’s beaches. Almost nothing else can the phone to ring off the hook more of office of Parks and Recreation Departr director Mike Sullivan.

“The first lecture I get is how important are to our economy,” said Sullivan. “I tell them. Some people who call me are here a week, and it ends up to be a week with seaweed on Long Sands Beach. What I tell the public is, we know that. We re
Seaweed situation plagues beach

By Duke Harrington and Molly Lovell-Keeley

BIDDEFORD POOL — The surge of seaweed that washed ashore last week on the beach in Biddeford Pool may not be uncommon, but by volume, it was unusual.

“I’ve been here 35 years and I’ve never seen anything like it,” said the city’s public works director, Guy Casavant, on Monday.

“The amount of seaweed that got deposited with that storm a week ago Sunday (June 28) was fairly significant — I’ve never seen that much seaweed left over after a storm — but it’s not all that unprecedented. We get some wash-up after just about any storm.”

Unprecedented or not, the deluge certainly catered to the attention of locals.

Normand Morin of Biddeford treats Biddeford Pool’s Bath House as its own community within the city. He greets newcomers and helps people carry coolers onto the beach. He even pushes strollers for those whose arms are full. His daughter, Jessica Aberle, who often accompanies him to the beach, refers to him as “the mayor.”

Aberle said she posted on the Facebook page of Mayor Alan Casavant to see if there was anything that could be done about the seaweed. What
http://www.seagrant.umaine.edu/node/855
Likely causes

Physical oceanographic factors:

- Wind direction
- Spring/neap tides
- Surf
Likely causes

Biological factors:

- Warmer waters
- Introduced species
- Excess nutrients (pollution)
Benefits

- System ecology
- Sand/dune stability
- Nutrients
- Food
- Habitat

A. Leonard
Issues

- Bacteria
- Aesthetics/smell
- Safety/visibility
Water quality

Goochs Beach, Kennebunk, ME
Generalized Current Structure
 Ebbing Tide Conditions
 ECZ – Ebbing Current Zone
 NCZ – Nearshore Current Zone
 SCZ – Slack Current Zone
 EFCZ – East Fringe Current Zone
 WFCZ – West Fringe Current Zone

Maine Geological Survey 2008
- Being cast and warmed matters
- Interior-temp. & bacteria increase
- Re-suspension - temporary issue
- Health risk?

S. Jones and D. Rothenheber
## Seaweed Density

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Kelly et al. (in process) University of Miami
Grooming increases FIB levels

Disturbs, increases surface area

Leave it alone?

## Grooming Protocol Addresses Seaweed?

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Management

- Protective rules
- LD 739
- Strategies

York Parks & Recreation
Management

York Parks & Recreation

Barber Surf Rake “Chicago Style” www.hbarber.com/
QUESTIONS?