



COMMUNITY NOTICE: HEALTH OF OUR SEAWEED

The low abundance and slow growth rate of our seaweed has been very unusual and alarming for all of us as this hasn't happened in living memory of the Heiltsuk. Kitasoo, Metlakatla and Haida Gwaii are also experiencing the same issue of low abundance and slow growth rate in their territories as well so this seems to be an issue for the whole North West Pacific region. Below is a description of possible causes for the decline of our seaweed.

El Nino-El Nino begins as a giant pool of warm water swelling in the eastern tropical Pacific Ocean that sets off a chain reaction of weather events around the world such as warmer water and climate. The El Nino warmer water events have been here for two years now and are predicted to return to normal this year (2016). The El Nino and La Nina are events of the ocean has been understood for quite some time now and our seaweed thrived during those years.

The blob - A name given to a large mass of warm water in the Pacific Ocean off the coast of North America. It was first detected in late 2013 and continued to spread throughout 2014 and 2015. Sea surface temperature indicates the blob persists into 2016. This warm water mass is unusual in Ocean conditions and is considered to have a role in the formation of the unusual weather conditions felt in the Pacific Coast. The warm waters of the Blob are nutrient poor and have adversely affected marine life.

Warm waters are much less nutrient- rich than the cold upwelling waters, which were the norm till recently off the Pacific coast.

Japan Radiation fallout from 2011 Tsunami- We have been sending seaweed samples to get analyzed since 2011 for elevated levels of radiation from the Japan nuclear fallout of 2011. All tests have come back negative. All previous results were that the levels were lower than nature as the sun produces radiation levels as well. Last reports, the plume was 1,500 km off shore yet. This year we sent samples out and are waiting for the results. Note: Hawaii, Alaska, California and BC are monitoring this event.

The El Nino combined with the blob ocean conditions are the most likely cause of the low biomass and slow growth rate of our seaweed.

Moving forward we will:

1) Identify research priorities:

1. Cause and effect
2. Triggers – what triggered this
3. Can it be predictable?
4. Is there anything to prevent this (if it's low nitrogen)
5. Is there any way to protect our seaweed- (transplant inland?)
6. Is there a way to restore low biomass, abundance?
7. Is there a way to gather seaweed spore and protect for future
8. Does the seaweed have the same nutritional value?
9. Is there anything else that may be effected?

2) Identify monitoring priorities:

1. Monitor known seaweed sites
2. Expand oceanographic monitoring

Discussions with our University partners who specialize in seaweed, oceanographic monitoring and near shore survey work has already started and we will work to try understand what happened this year.

Together we are reviewing all of the current research information and reaching out to others in the pacific region who are doing oceanographic monitoring to see if there are trends in ocean temperature or any of the other indicators monitored here.

Below is a list of the Professors currently working on this issue of seaweed:

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