

OPR Alaska, Inc.

OCEAN RESTORATION

Alaska Seafood Industry Task Force Presentation Sept. 2024

Proven immediate and sustainable restoration of Alaska's ocean fish and sealife

San Francisco, Kenai, Kodiak

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OPR Alaska Brings Back The Fish & Fights Climate Change

Executive Summary

- OPR Alaska, Inc. proven Nature-Based ocean restoration will deliver hundreds of millions of additional fish into Alaska's nets and onto the nation's tables .
- We will create a new multi-billion-dollar Alaskan natural ocean resource - specified in the Paris Climate Agreement as 'Blue Carbon'
- Imagine OPR Alaska's 2025-2028 ocean restoration resource development project as being like the first years of production of North Slope oil
- 'Nature-Based' ocean restoration is being mandated around the world, importantly by the EU Nature Restoration Law which provides €8.3 Billion per year (\$9.2 Billion), also by the US Congress Ocean Restoration Act presently on the floor of the House.
- Safe, sustainable, and successful with long term business plan: Providing the state with hundreds of millions of dollars in sustainable new resource revenues, jobs, abundant nutritious fish, and more...
- Initial 3-yr. R&D phase will also be an environmental and socio-economic study

International Legislation

Member States will implement restoration of at least 20% of the EU's land areas and 20% of its seas by 2030 increasing through 2050.

€8.3 Billion per year approved!



EN

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Environment

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PRESS RELEASE | 15 August 2024 | Directorate-General for Environment | 6 min read

Degraded ecosystems to be restored across Europe as Nature Restoration Law enters into force

The regulation sets binding targets to restore degraded ecosystems, particularly those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters.

Federal Legislation

US Ocean Restoration Act
Congressman Buddy Carter,
Rep. Georgia, avid ocean
fisherman is the sponsor of
this act which intends to
stimulate private sector
joint funding of vitally
needed ocean restoration.

The matching funds Act
starts with federal funding
of \$33 million per year, thus
stimulating joint public
private ocean restoration
worth \$66 million per year.

118TH CONGRESS
2^D SESSION

H. R. 7797

To direct the Secretary of Energy to establish a pilot program on ocean fertilization and restoration research and development, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 22, 2024

Mr. CARTER of Georgia introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To direct the Secretary of Energy to establish a pilot program on ocean fertilization and restoration research and development, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Ocean Restoration Research and Development Act”.

State Legislation

July 31st 2024

Governor Dunleavy

Signed [HB-50](#)

creating a regulatory framework for carbon capture, utilization and storage (CCUS).

With slight amendment this bill will bring back billions of dollars of seafood!

HOUSE BILL NO. 50

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTY-THIRD LEGISLATURE - FIRST SESSION

BY THE HOUSE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

Introduced: 1/27/23
Referred: Resources, Finance

A BILL

FOR AN ACT ENTITLED

1 "An Act relating to the geologic storage of carbon dioxide; and providing for an
2 effective date."

3 **BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:**

4 * **Section 1.** SHORT TITLE. This Act may be known as the Carbon Capture, Utilization,
5 and Storage Act.

6 * **Sec. 2.** AS 31.05.027 is amended to read:

7 **Sec. 31.05.027. Land subject to commission's authority.** The authority of the
8 commission applies to all land in the state lawfully subject to its police powers,
9 including land of the United States and land subject to the jurisdiction of the United
10 States. The authority of the commission further applies to all land included in a

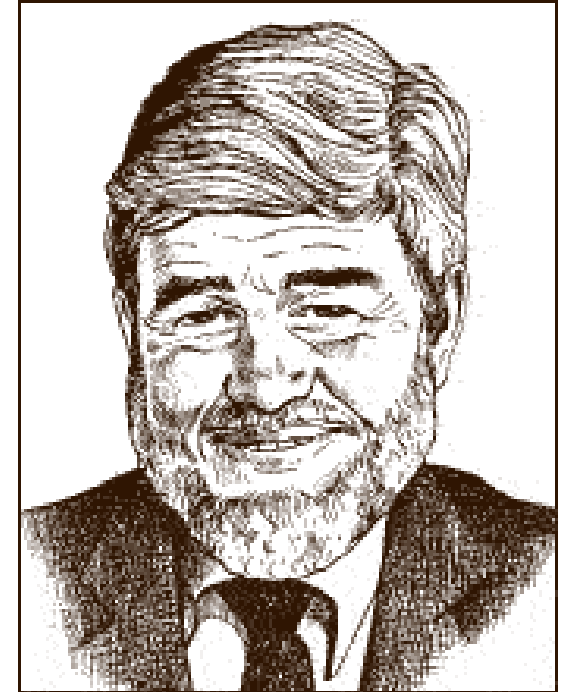
50 Years of research and counting...

*NASA honors
just one person
on their website
On The
Shoulders Of
Giants
tells the decades
long history of
ocean
restoration*

In the early 1970s, Prof. John Martin reported that ocean plankton had been disappearing. As a result, the US government decided to build and put into orbit in 1978 the first ocean plankton satellite.

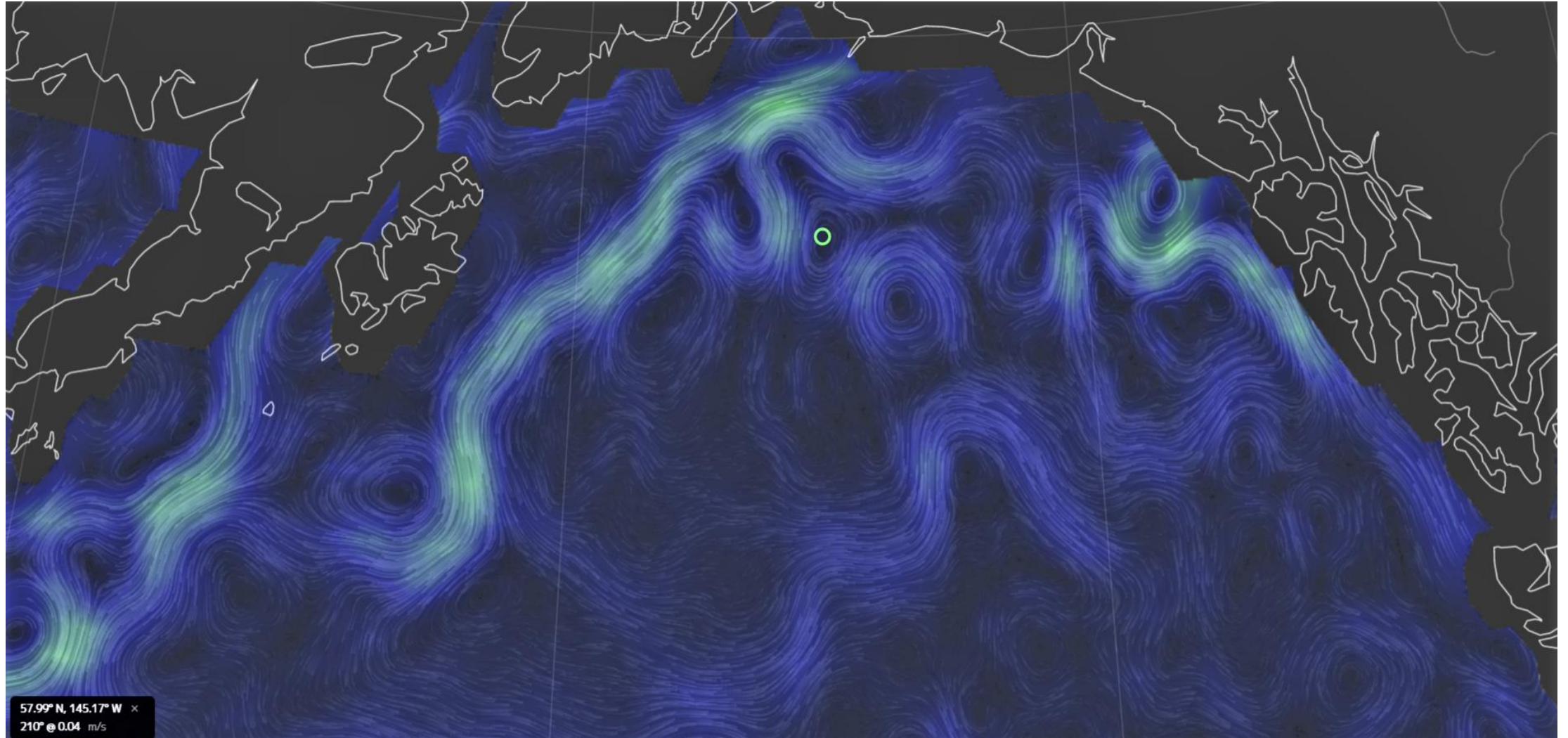
Results: Following a decade of at-sea, laboratory, and satellite observation, Martin put forth his Iron Hypothesis.

It stated, *'the emerging crisis of global warming can be solved through restoring the oceans' phytoplankton. Oceans regulate the climate and plankton rules the ocean.'*



[Click to read NASA memorial to John, "On Shoulders of Giants" Webpage.](#)

OPR Alaska View Of Alaska's Ocean Pastures, 'Eddies'



OPR Mimics Nature, Replenishes Missing Dust

Natural sources of mineral dust commonly nourish Ocean Pastures, but natural dust sources are both unpredictable and, due to anthropogenic CO₂, in great decline.



Alaskan volcano, Kasatochi, erupted in August 2008; its mineral-rich ash dusted and restored Gulf of Alaska salmon pastures. As a result, in 2010 the largest return of Sockeye salmon in history swam home to Canada's Fraser River



This natural dust falling in the South Pacific originated when drought in Australia dried up all the grass. Today due to high CO₂ the grass is growing greener. **More grass growing means less dust blowing.**

How OPR Works – Science

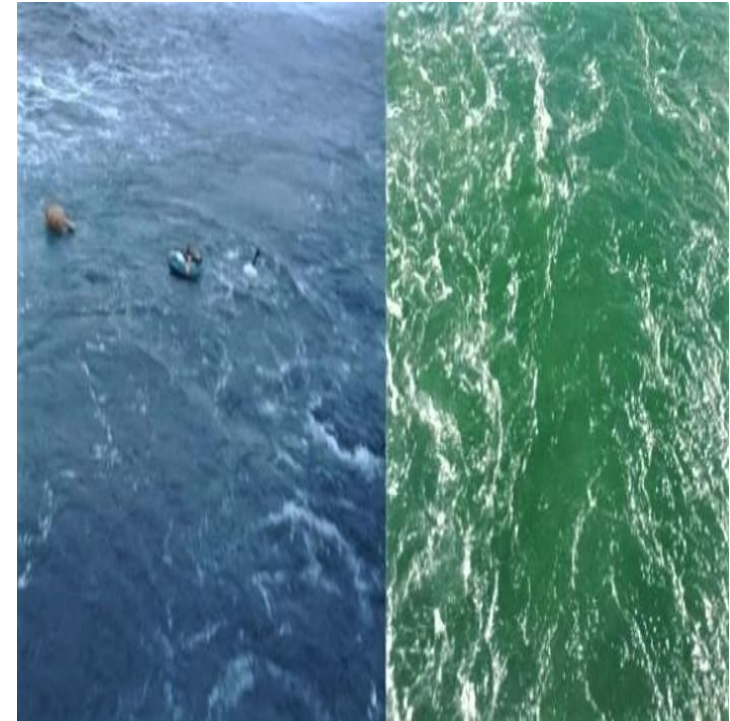


Iron concentration ~200+ miles offshore is often too low to support plankton blooms at 3 parts per trillion. At just 100 parts per billion, the ocean pasture will bloom.

Mineral dust is mixed with water and sprinkled across a ~100km ocean pasture

Ocean disperses and dilutes the mixture while we collect state-of-the-art ocean science data.

Replenished iron helps the pasture bloom, feeding ocean life and capturing & sequestering CO₂ as new ocean life.



From the 2012 project: Left photo shows a relatively lifeless clear blue ocean. Right photo shows the bloom that has begun a few days later.

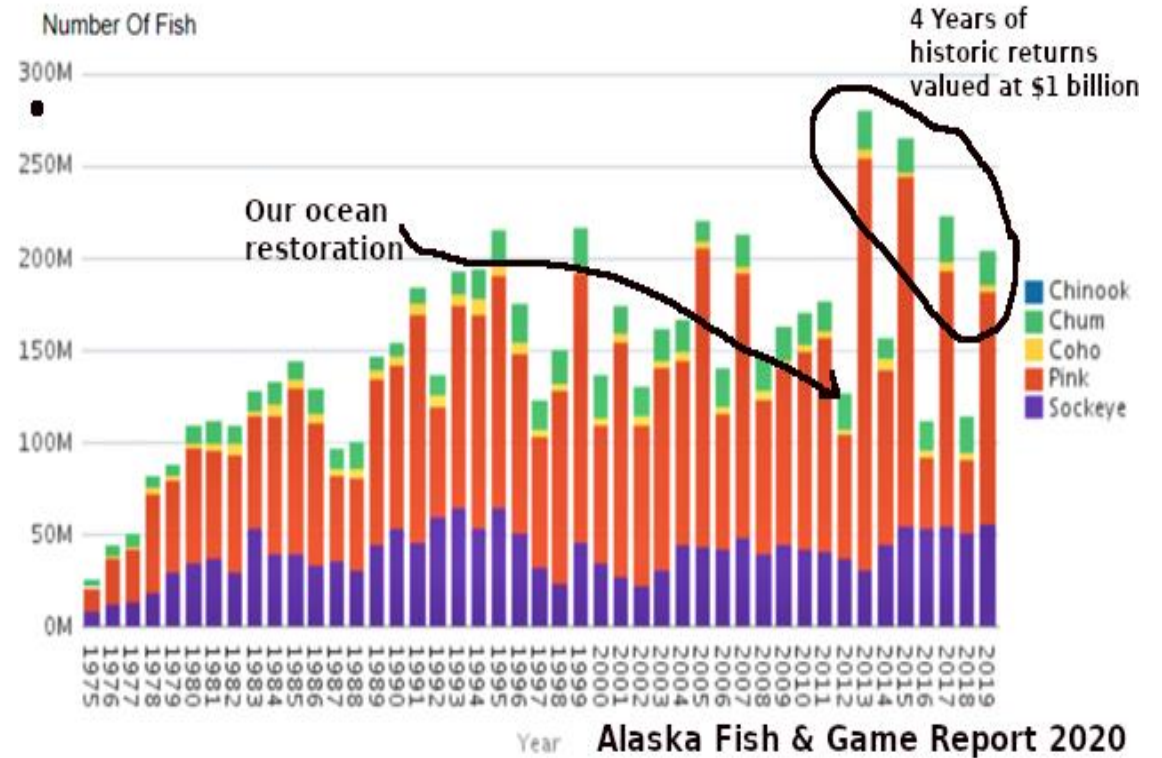
OPR Brings Back the Fish & Restores the Climate

OPR World applied its unique technologies in 2012 to deliver Alaska's largest catch of salmon in history.

OPR Alaska plans to repeat this success to restore Alaska's ocean pastures in 2025.

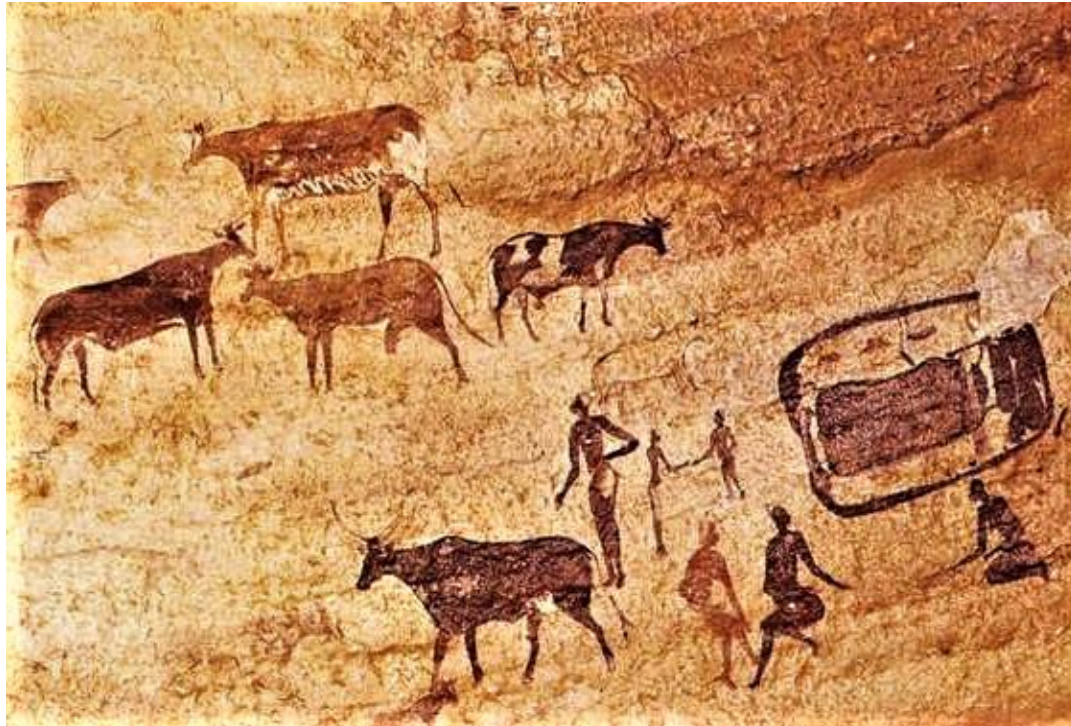


The very next year, our village work proved its value with the largest catch of salmon in history.



Fish are made of carbon, repurposed by plankton photosynthesis; more fish in the ocean means less CO₂ in the air.

About Pastures And Being Good Shepherds



This Rock Art dated to 11,000 years ago depicts the beginning of pasture management on land – mankind becoming good shepherds



This is our traditional management of the wild fish produced by our Alaskan ocean pastures. More technology catching more fish - not a lot of good shepherding of the pasture.

Giving Back To Restore The Oceans Of Alaska

One Village's Way of Restoring the Ocean

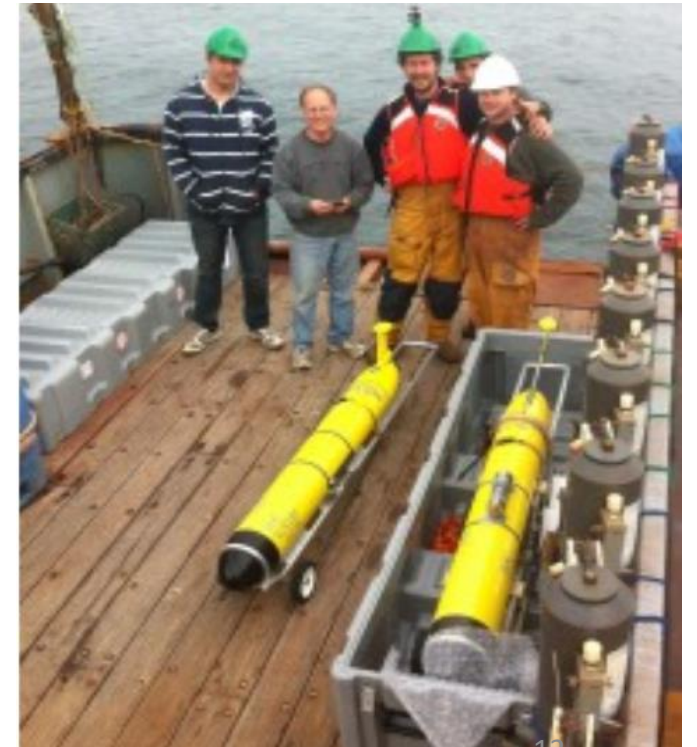
*“Never doubt that a small group of thoughtful, committed, citizens can change the world. Indeed, it is the only thing that ever has.”
~Margaret Mead*



NOT ROCKET SCIENCE !

4,000 fifty-pound bags of mineral dust one by one, man by man, lovingly gifted to Mother Ocean to restore and replenish her life.

ROCKET SCIENCE! Our two yellow Slocum Glider satellite guided ocean robots, were on the job 24/7 for months profiling the restoration in our village ocean pasture.



Ocean Pastures Sustain Living Natural Resources



Globally ocean life has declined by more than 50% since 1950

- Collapse of ocean pastures that sustain ocean life, biodiversity, and global climate are a far greater threat than ‘overfishing’
- Every 5 years an entire Amazon rainforest of life is eradicated in our dying ocean pastures

Ocean collapse is part of ‘climate change’, but oceans influence the climate more than the climate influences the oceans

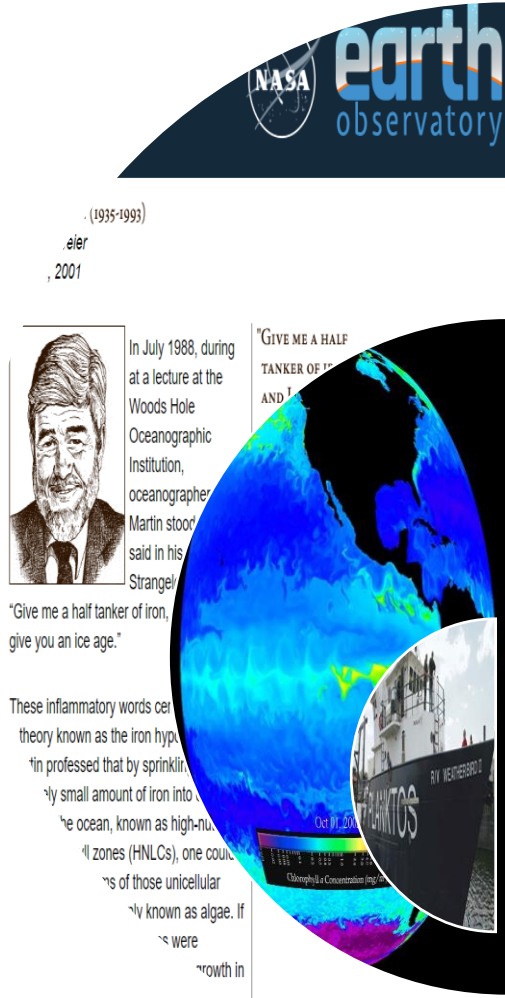
- Oceans cover 72% of our blue planet and sustain 90% of global plant and animal life.
- 90% of the oxygen we breathe is made by ocean plants converting CO₂ into oxygen.
- Healthy living oceans actively cool the Earth

OPR Alaska Ocean Pasture Restoration technologies will restore oceans to historic health and productivity in just a few years

- In doing so, billions of additional fish will swim into our nets and onto our plates
- Billions of tonnes of CO₂ are simultaneously repurposed by ocean photosynthesis into new life. Not just fish... all of ocean life

OPR, IT JUST WORKS!

OPR Derives from 50 Years of Ocean R&D



John Martin (RIP) – Ocean scientist extraordinaire, 1988 Ocean Science Meeting Presentation

- *“Oceans are suffering from iron deficiency anemia, give me a half a shipload of iron, I’ll give you another ice age” [NASA Link](#)*

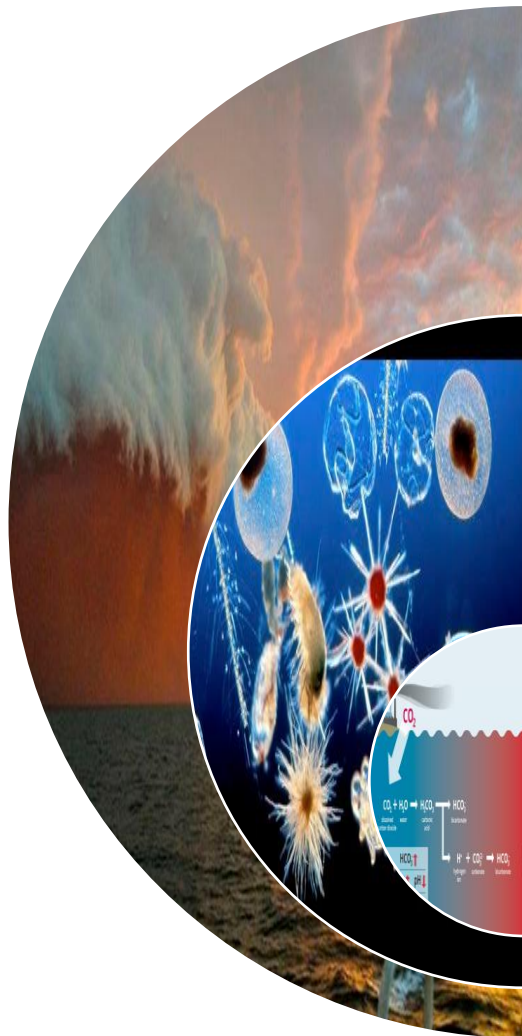
Ten major ocean dust experiments over 20 years completed by international academic teams at public cost in excess of \$300 million

- *All prove John Martin’s Geritol Solution to remedy ocean anemia safely works*
- *Results lead scientists to call for a large sustainable demonstration experiment*

OPR World began in 1999, with iterations in 2002, 2005-2007, leading to world’s largest commercial scale pilot project in the Gulf of Alaska 2012, and today’s OPR World’s global projects

- *It ‘Brings Back the Fish’ and captures tens of millions of tonnes of CO₂ doing so*

OPR Is Safe, Sustainable, & Profitable



Eco-restoration replenishment of natural mineral dust promptly and safely restores ocean pastures.

- A healthy ocean pasture means more fish surviving and growing along with restored biodiversity.

Decades of research costing hundreds of millions have revealed **zero risks arise.**

- Clear, blue, dying ocean deserts turn to lush blue-green healthy for all of ocean life

Restored photosynthesis repurpose tens of millions of tonnes of CO₂ into new ocean life, creating a new valuable resource.

- $H_2O + CO_2 = H_2CO_3$ (deadly acid)
- $H_2O + CO_2 + \text{Photosynthesis} = \text{Life}$
- Ocean CO₂ is monetized as 'Blue Carbon' in the Paris Agreement on Climate Change

OPR's 'Nature-Based Solution'

Ocean Restoration Is The Best Solution To Fighting Climate Change



In fighting 'climate change' it isn't enough to merely reduce our fossil fuel emissions

- Emission control only reduces tomorrow's CO₂

Yesterday's 2 trillion tonnes of CO₂ cause all climate & ocean change effects the world suffers from today

- High and rising CO₂ is making the oceans acidic and destroying productivity and biodiversity

Natural photosynthetic ecosystems on land and sea are dramatically changed by yesterday's CO₂

- Drylands are today greener from high and rising CO₂. But *more grass growing means less dust blowing*. We must replenish the dust to sustain ocean life.

MARKETS - How The World Makes OPR Alaska Work



Paris Climate Change Agreement specifies 'Blue Carbon', ocean CO₂ management, as part of the common climate market

- Today the global benchmark EU pricing for carbon/climate credits is approximately \$30 USD; prices are projected to significantly rise.

Climate markets are thriving around the world, with 61 carbon pricing initiatives in 46 national and 32 subnational jurisdictions

- California law manages the sale of carbon credits setting a **floor price this year** of \$34 USD that increases annually by 5% plus inflation.

In many oceans of the world, OPR seeks to restore the world's most important commercial fish

- OPR already delivered to Alaska, a historic catch of salmon. The state reported it added \$600 million in economic stimulus to the economy.

OPR's Many Miracles

Restoring oceans to historic health offers many benefits.

- ❖ Brings Back the Fish (and all of ocean life: whales, seabirds, sea lions, ...)
- ❖ Repurposes deadly anthropogenic CO₂ safely and sustainably into new ocean life
- ❖ Repairs the faltering biological ocean cooling pump and stops ocean warming
- ❖ Restores ocean blooms as major source of clouds, cooling and bringing rain to the world
- ❖ Provides the only means to biofilter, scrub, and safely remove deadly mercury from our oceans
- ❖ Creates valuable blue carbon/climate 'natural resource' value for nations and their people
- ❖ Ushers in new age of ocean stewardship, caring for instead of pirating ocean values
- ❖ Creates opportunity for tremendous profits shared by the company and government partners

OPR Alaska Business Road Map

- ✓ **OPR Alaska, an operating partnership company of OPR World, seeks to work with the state of Alaska via a ‘public-private partnership’ agreement.**
- ✓ **OPR Alaska ‘Bring Back the Fish’ and ‘Climate Change’ work will create tremendous value in fish and restored ocean pastures (photosynthetic ecosystems), climate values are monetized as ‘blue carbon.’**
- ✓ **Alaska has right to certify OPR Alaska’s ‘blue carbon’ as per the Paris Agreement on Climate Change, Alaska is already in a climate market partnership with California.**
- ✓ **Alaska’s new Carbon Capture Utilization & Storage Legislation supports practical deployment of technology to safely capture, make use of, and store CO₂. Federal government is providing massive financial support for this work.**
- ✓ **OPR Alaska, a for-profit company, operates via development and technology license agreements with OPR World. OPR World and Alaska partners are responsible for facilitating investment to finance OPR Alaska business plan.**

OPR World Corp. Resume

- **2015–Present:** Continuing ocean science research, including operating OPR World and OPR Alaska and other OPR ‘operating partnership companies’
- **2008–2013:** Our Haida Salmon Restoration Corporation was ‘public- private partnership’ with Haida Village of Old Massett, British Columbia, and Canadian federal government partners as reported by Alaska State Fish & Game 2020 *“Largest Catch Of Salmon In History”*
- **2005–2007:** Planktos, a venture-financed, publicly traded start-up company as reported in Sunday Times Of London *“Will This Man’s Plankton Save The World”*
- **2002:** First offshore ocean mineral dust replenishment experiment half-way between San Francisco and Hawaii sponsored by Rock Star Neil Young, as reported Journal Nature 2003

OPR Alaska Inc. Alaska Seafood Task Force ASK

- 1. Ocean Restoration as top recommendation of the Task Force**
- 2. Begin at sea in June 2025 actively restoring Alaska's ocean**
- 3. Ocean Restoration backed by Legislature and Governor as an effective and approved method of carbon capture and storage**
- 4. Ocean Restoration and blue carbon accepted and approved as an Alaska climate change mitigation method and specified as equal to and equivalent to fossil fuel industry carbon capture and storage methods**
- 5. Alaska petitions White House and DOE to endorse ocean restoration as a vital national goal to be included in the US Climate Change NDC**

Contact Us

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