

Sea Scope™ or Smoke Screen?

It is not the normal intention of **MARINE AQUARIST™** to debate other publications. However, we feel it necessary to offer an accurate answer to Sea Scope™ Vol. 11 Winter 1994.

SMOKE SCREEN: Mr. Frakes, author of "Sea Salt Assay: A Closer Look" offers uninformed and misleading information regarding an independent laboratory assay of 15 marine salts.

Certainly thousands, perhaps millions, of mis-marked, mis-shapen clownfish were raised at Instant Ocean Hatcheries. But not in I.O. exclusively and the facility ultimately ceased operations.

Mr. Frank Hoff, then director of I.O. Hatcheries indicated that "Spawning occurs either naturally or semi-naturally (hormone induced)." Aquarium News Page 16, Oct. 1976. If the fish did not spawn he added hormones. This is not part of Instant Ocean®.

HALF A FORMULA: Sea Scope™ tells readers that Mr. Perrin of Tropiquarium in Detroit is successfully breeding corals in Instant Ocean®. Mr. Perrin obtains a concentrated salt mix then adds common salt or sodium chloride, (approximately 55%+ of his formula) he gets locally. (Personal communication 1993).

Changing the grade or quality of the majority of a salt mix can create a formula that may not make the same Instant Ocean® available to dealers or consumers.

CLAIMS: Aquarium Systems® claims Instant Ocean® Synthetic Sea Salts has earned a reputation for superior quality. This claim cannot be tested but has been frequently rebutted.

In Sea Scope™ Vol. 7 Summer 1990 appears "Table 1 a comparative analysis of four commercial brands of sea salts mixed to the same specific gravity." This advertisement indicates that only I.O. is similar to NSW and does not list test results for sulfate (a major element) or bromide (a minor element). This is an "unsigned report" with no indication of what SG the salts were mixed to.

FACT: The information for the S-15 Report™ was produced by Anresco Laboratory (a third party independent lab. Dr. Eisenberg Director) with the majority of testing done at the University of Missouri, a US. Government prime contract testing laboratory and funded by Global Scientific Publications™. There are no "claims" in this report, positive or negative, only statements of quantifiable facts.

Mr. Frakes's allegation that there is no scientific validation is untrue like many other statements made. Only Global Scientific Publications™ has been willing to spend the money to do the testing. The entire content of the S-15 Report™ is the heart of a new book to be released by Global Scientific Publications™.

If there is contradictory evidence available, we ask Mr. Frakes to publish this evidence along with the name of the laboratory that will stand behind that evidence, the name of the responsible person who oversees the testing and the name of the funding organization.

CONFUSION: Sea Scope™ has used the word confusion in 1990 and 1993 when describing assays and packaging of various marine salts. Anresco Lab. and a US. Government prime contract testing laboratory are not confused. We ask, who, in fact, is confused?

Be skeptical of Sea Scope™ or other publications that offer test results or information that do not indicate the name of the laboratory used or the person responsible for test results. It is very easy for anyone to make negative comments on test results that they did not contribute to.

THE MOST ASKED QUESTIONS ABOUT SALTWATER AND REEF AQUARIUMS

BROMIDE and IODIDE

Q: How much bromide is in natural seawater and how important is it for keeping marine fish and reef inverts?

A: There is 65 parts per million (ppm) of Bromide in NSW. It is believed by researchers that there may be a synergistic relationship between bromide and iodide. The proper amount and form of iodide (not iodine) might prevent some aquatic health problems.

The presence of iodide alone without bromide will temporarily raise redox but not prevent health problems associated with iodide deficient environments.

BROMIDE and OZONE

Q: Will the proper amount of ozone produce a toxic condition when used with a marine salt that contains bromide levels similar to NSW?

A: No. Excessive or uncontrolled amounts of ozone may be responsible for creating a toxic condition when in contact with some form of bromide. High levels of ozone are not in NSW.

WHAT MAKES A GOOD SALT?

- 1) A formula that is similar to NSW.
- 2) Uniform particle size of all salts.
- 3) No deficiencies or excessive amounts of elements.
- 4) Little variations between samples.
- 5) Low in nitrates, phosphates, silicates, and not excessive in metals.

ENRICHED or DEFICIENT?

Q: Are Coralife® and Reef Crystals® enriched sea salt formulas?

A: Coralife® tested higher in calcium than NSW. However the same samples proved to be deficient in magnesium and low in sulfate, both major components.

Magnesium in Coralife® was 782 ppm vs. 1350 ppm in NSW (see Marine Aquarist™ Vol. 1 No. 1). Sulfate was 2367 ppm vs. 2700 ppm in NSW.*

Reef Crystals® claims to be calcium enriched. However, two samples varied between 380 ppm and 488 ppm, vs. 400 ppm in NSW. One sample was higher and one sample was lower than NSW.*

WHAT SALTS WERE NON-UNIFORM PARTICLE SIZE?

Irregular or non-uniform particle salts can be seen in Coralife® and Coral Sea. Non-uniform or irregular particle sizes of different salts in a mixture allow for separation of these elements during manufacturing, packaging, transporting, and in general handling. This can produce a mixture that can contain different parts of the formula in different parts of the package.

Marine Environment®, BIO-SEA® and Coral Marine™ are uniform particle salt formulations.

Which salts have vitamins?

Coralife® and Reef Crystals® both claim to have vitamins in their products. Both brands were assayed for vitamins and no vitamins were detected vs. claim of vitamins on their package.*

Marine Environment® contains vitamins in a separate "little bottle™" included inside of each package.

* S-15 Report™

® & ™= Registered Trade Marks.