

Space

NASA research leads to self-contained life support systems for marine life. Humans are next.

You are about to discover one of the most significant developments in our drive to conquer space. Yet, only those who read this article completely will appreciate the major breakthrough we have just uncovered.

A small company in Arizona, in conjunction with NASA researchers, has taken the first step toward creating a system that will support life in space and that may eventually result in the development of a manned deep space probe or a permanent orbital space colony.

The first step we've mentioned involves small shrimp-like sea creatures in a glass sphere called the SEBRA® Space Probe. After ten years of experimentation, scientists finally hit upon the exact ecological balance required to maintain life for from four to eight of these creatures in a totally encapsulated sphere filled with plant life, water and atmosphere. Here's how it works.

SPECIAL WATER FORMULATION

Four shrimp of a highly evolved species and a special water formulation are placed in a glass sphere along with a green plant. A specially controlled air mixture enters the sphere to create an ideal atmosphere. The sphere is then permanently sealed so that all resources for life are encapsulated in the unit.

The only outside requirement is light. Light causes the plants to produce oxygen in a process called photosynthesis. The shrimp need oxygen to live, and they eat small bacteria that grow on the plants.

The shrimp in turn exhale carbon dioxide and produce waste containing nitrogen for plant food. The plant needs carbon dioxide and nitrogen to produce oxygen—all while providing a home for the bacteria.

The entire cycle is balanced and self-sustaining. The shrimp, plants and bacteria all live together, each consuming and producing only those elements they require to live a happy fulfilling life—all without polluting their environment.

LIFE SPAN

The shrimp will live for well over five years with proper light although their life span could conceivably reach 25 years. If one of the shrimp dies, it will decompose from bacteria within 3 to 10 days turning into food for the remaining shrimp and nitrogen or fertilizer for the plant. Although the shrimp may produce eggs, the other fish will eat them to avoid overpopulation.

The air above the water contains the essential elements found in our atmosphere on earth and is formulated to simulate that atmosphere and to avoid any contamination or evaporation of the water.

The significance of this project is enormous. Taking the lessons learned in the Space Probe, scientists are doing research into higher life forms and the necessary ecological balances required to sustain life without the wasting of resources.

If such a system can be created for humans



in a self-sustaining space colony, we can explore the deepest reaches of space. Here on earth we can learn the balances necessary to insure life on our planet with our limited resources. But there's a twist to this story.

PET SHRIMP

The scientists felt that the SEBRA® Space Probe would make the perfect environment for pet shrimp. The scientists noticed that the shrimp swam, played, and seemed to enjoy their new home. The scientists also felt that the science taught by the Space Probe were good lessons for both children and adults. It was a great conversation piece. And in the few experiments they conducted with human interaction, many people became personally attached to the little creatures and hated to give them up.

But to produce the sphere inexpensive enough to sell to the public required economies that couldn't be justified. First, the glass used in the sphere is expensive. It had to melt at a low enough temperature so that the sphere could be completely sealed and not fry the shrimp.

Second, the shrimp are caught thousands of miles from the US mainland in their natural environment and require special transportation procedures. Third, the air and water are premeasured mixtures that must be chemically balanced and inserted in a controlled environment. Fourth, the entire mixture then has to be stabilized for a few weeks to make sure that the entire life cycle process will function for many years to come.

PLANTS REQUIRE LIGHT

And finally, there was no way to deliver the Space Probe. The plants require light to produce oxygen, and if there was no light within 48 hours, the shrimp would die from lack of oxygen.

The first SEBRA® Space Probe produced outside NASA laboratories cost over \$30,000 to develop. But through the production facilities of one of America's leading medical manufacturing firms and a leading university, the production costs have been reduced.

Only a few hundred have been produced for those who wish to purchase them from this advertisement. They cost only \$149. They make a great conversation piece, a fascinating pet for children and look perfect on any executive's desk. It's also the perfect display for any science classroom or library. The shrimp never require special food, or changes of water and are, without question, the easiest-to-care-for pet you can own.

MUST HAVE LIGHT

Remember, however, the Space Probe must have light. Most offices with fluorescent lights and windows will do just fine. But if your home or office is dark over the weekend or for any length of time, we recommend the optional \$69 fluorescent life-support lighting system that fits under your SEBRA® Space Probe and provides continuous light for a few cents per day. It also transforms your "experi-

The Space Probe is 5" in diameter and is 6" high resting on its life support stand.

ment in life" into a unique night light.

This life support is expensive because it uses two costly fluorescent tubes specially formulated for photosynthesis applications and all transforming functions are located within its base—all without causing excessive heat. But remember, you don't need the life-support light if you have sufficient fluorescent light or daylight where you keep the Space Probe.

To ship the Space Probe, the manufacturer uses Express Mail delivery. Each SEBRA® Space Probe life support system is shipped only on Monday or Wednesday to ensure delivery within 48 hours so that it won't wait at a post office or your company's receiving room over a weekend.

SPECIALLY DESIGNED BOX

The shrimp can withstand temperature extremes from 60°-90°F, and the box used to ship the sphere has been designed to protect the shrimp during their transport period. Special scientific papers come with each unit explaining the process and the significance of your purchase. And each sphere contains four shrimp.

We pay for the freight to your location. If you decide to return your Probe for a refund, we ask only that you pay for the Express Mail return so it will arrive during the week.

If you order the life support system with your unit, you will also receive a one-year life policy on your little sea creatures. A 30-day life policy is supplied for orders without the life support system. A special deluxe model is available which includes six to eight shrimp, the life support light and the bacteria substrate material shown above.

We are on the verge of some interesting technology that could have a significant impact on future space exploration. Be one of the few who own the world's first self-sustaining ecological life support systems. Order a SEBRA® Space Probe at no obligation, today.

To order, credit card holders ask for product by number (in parentheses) or send a check plus \$4.00 for delivery.

Space Probe (0077M) \$149
Life Support Lighting System (0078M) .69
Deluxe Space Probe (0079M) 250

Note: Because of the confidential nature of this project, we cannot reveal the exact species of shrimp used, the plant material nor the chemicals in the water.

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