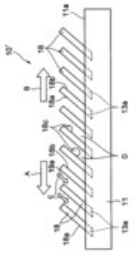
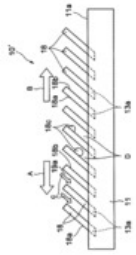
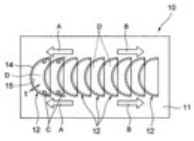
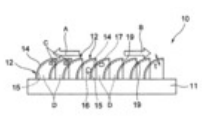
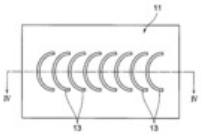
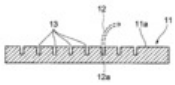
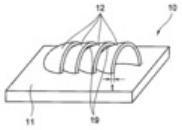
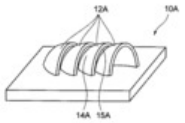
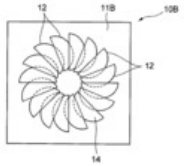
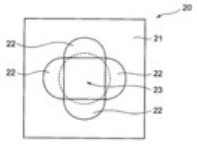
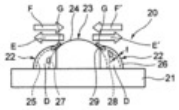
4206 results for ((coral)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX AND (hatchery OR nursery OR breeding)/TI/AB/IW/CLMS/DESC/ODES/OBJ/ADB/ICLM/KEYW/TX) - Collection: FAMPAT

#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
1.	Base for **coral breeding**, and method of **breeding coral**	JP2008141979	2006-12-07	PENTA OCEAN CONSTRUCTION*	2008-06-26	2008-06-26

PROBLEM TO BE SOLVED: To provide a base for **breeding coral**, which is capable of making **coral** larvae adhere efficiently at low cost and effect **breeding** of **coral**, and to provide a method of **breeding coral**.
SOLUTION: The base for **breeding coral** 10' includes at least two planar parts 18, separated from each other and a support member 11 for supporting the planar parts. The planar parts are positioned, in a manner of facilitating the flow of seawater into the gap 19a, between the planar parts and making it less apt to flow out of the gap, when the water flow is reversed, as well as, of forming a stagnation part 18c and a light-shielding part in at least a part of the space between the planar parts.
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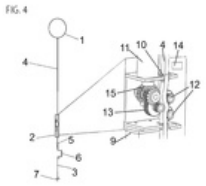











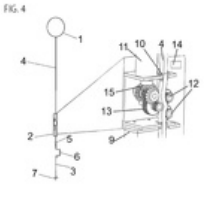
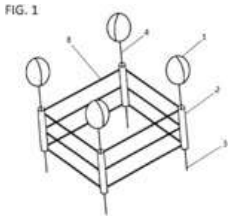
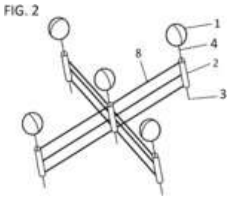
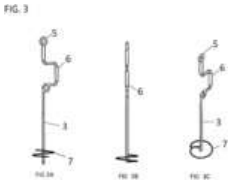
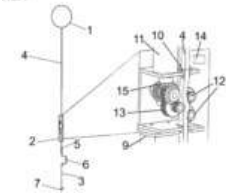
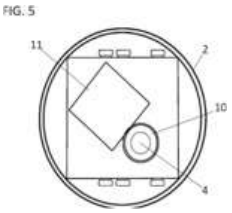
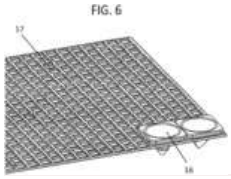
#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
2.	Weed species of **coral** container **nursery** method	CN108684406	2017-03-02	MO YUMING	2018-10-23	2018-10-23

The present invention discloses a method of the seedling grass **coral** container, belonging to the technical field of the Chinese culture, specifically including mulch is selected, taking the subsoil yellow soil, turf mud preparation to fire, nutritive soil formulated, sterilized nutritive soil, selecting a container, the pendulum **nursery** dishes nutritive soil, seeding, mulching film is disclosed, shadowing, thinnings bicidally, fertilizing, functions as a seedlings 13 steps, which effectively solves the artificial culture on soil and climate-demanding grass **coral**, transplant survival rate is low, the problem of slow-growing, the benefits of: saving the seed and seedling containers, 30% or more than the bare root seedling saved seeds, seedling containers recycling availability, seedling raising period is shortened, lengthened when transplanting season, are adaptable to the planting, transplanting the survival rate after high, growing rapidly, ensuring a high yield artificial cultivation **coral** grass, cost-effective.

#	Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
3.	Submersible **nursery** device for artificial cultivation of **coral** in shallow reefs	CO2017003194	2017-03-31	FUNDACION UNIVERSITY DE BOGOTA JORGE TADEO LOZANO*	2018-04-10	2018-04-10

The invention relates to a submersible **nursery** device for artificial cultivation of **coral** in shallow reefs, comprising two washing-line configurations, one forming a square and the other a cross, made up of vertical ropes anchored at the bottom to the seabed and tensed at the top by floating buoys; said ropes pass through cylindrical polypropylene tubes; said tubes are interconnected to the closest tubes by horizontal ropes, including one upper, one lower and one central rope, to form three horizontal planes, for installing respective meshes containing substrates or wafers for **coral** larvae to settle; each tube comprises on the inside an electromechanical mechanism with pinions that grip the vertical rope, and makes it possible to raise or lower the horizontal planes; said mechanism is driven manually or powered by a battery or solar panel. A submerged temperature sensor uses a control card for raising or lowering the mechanism to the required temperature.



4. Preparation method of composite liquid bait for artificial **breeding** of **coral** — CN107410757 — 2017-05-11 — FUJIAN NORMAL UNIVERSITY* — 2017-12-01 — 2017-12-01

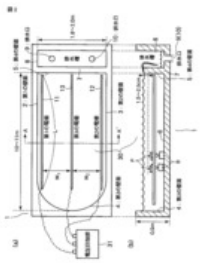
The invention belongs to the technical field of artificial **breeding** of **coral**, and particularly relates to a preparation method of composite liquid bait for artificial **breeding** of **coral**. Specifically, the composite liquid bait is prepared through the following steps of by using shrimp meat, mussel sexual gland and fish oil as raw materials, adding compound protein enzymes, and performing enzymolysis to prepare enzymolysis supernate and fish oil mixed liquor for standby application; by using ulva lactuca liquid and nannochloropsis oculata as raw materials, preparing nannochloropsis gaditana and ulva lactuca mixed liquor for standby application; enabling saccharomyces cerevisiae, candida utilis seed liquid and rhodospirillum rubrum seed liquid to be made into mixed bacterium seed liquid for standby application; adding complex vitamins to all of the liquid for standby application so as to obtain the composite liquid bait for artificial **breeding** of **coral**. The composite liquid bait for artificial **breeding** of **coral**, prepared by the method disclosed by the invention, is comprehensive in nutrient components and good in balance, is harmless, and has the efficacy of purifying water quality, and the survival rate and the growth rate of the artificially bred **coral** can be increased.

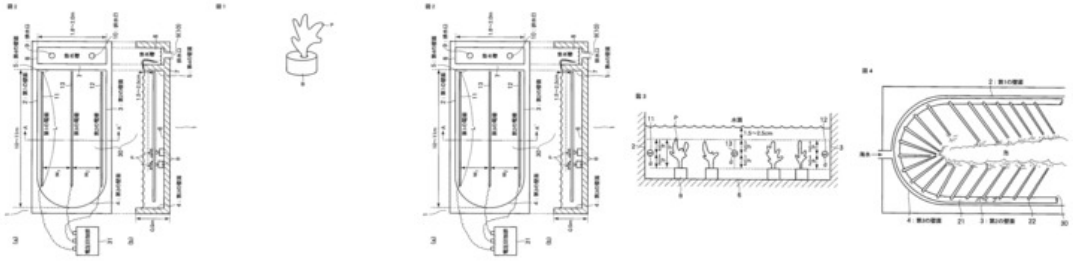
虾肉	500～520g
贻贝性腺	480～500g
鱼油	5～7g
海水	1000mL

虾肉	5kg	虾肉	10kg
贻贝性腺	5kg	贻贝性腺	10kg
鱼油	0.07kg	鱼油	0.14kg
海水	10L	海水	20L

5. Method and installation for **breeding** **coral** — JP2008259476 — 2007-04-13 — RAITSUPARAO* — 2008-10-30 — 2008-10-30

PROBLEM TO BE SOLVED: To provide a method and an installation for **breeding** **coral**, efficiently promoting the rooting and **breeding** of **coral** colony at a site where **coral** reef has been destructed or has not been grown.
SOLUTION: The method comprises the following process: Basal bodies immobilized with **coral** pieces of reef building **coral** are arranged on the bottom wall of a water tank in between a first electrode and a second electrode arranged in parallel to each other on the first and the second wall surfaces facing to each other of the water tank, and direct-current voltage is applied in between the first and the second electrodes while holding the first and the second electrodes at an intermediate position in the vertical direction of the **coral** pieces. Water is supplied into the water tank by jetting seawater onto the water surface in the water tank at predetermined hydraulic pressure via multiple seawater jet nozzles provided horizontally on the third wall surface of the water tank, and stationary seawater flow running from the third wall surface to a fourth wall surface is created while keeping the water level nearly constant, by exhausting the seawater in the water tank in such a waterfall fashion as to extend from the fourth wall surface facing to the third wall surface sideways of the fourth wall surface.
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6. **Nursery** stock planting method on **coral** sand of newly-built tropical dredger-reclaimed reef — CN106718602 — 2016-12-30 — QINGDAO LANDGREEN ECO TECHNOLOGY* — 2017-05-31 — 2017-05-31

The invention discloses a **nursery** stock planting method on **coral** sand of a newly-built tropical dredger-reclaimed reef. The method comprises the steps of 1, adopting a **nursery** stock of which the height does not exceed 3 m; 2, treating the **nursery** stock with ABT rooting powder; 3, digging a planting pit, and leaching the plating pit with desalination seawater; 4, covering the bottom of the planting pit with red nutrient soil; adopting the desalination seawater to leach the **coral** sand or sea sand dug from the planting pit, and refilling the **coral** sand and the sea sand; 6, paving the surface of the planting pit with a layer of red nutrient soil, and irrigating with the desalination seawater. According to the **nursery** stock planting method on the **coral** sand of the newly-built tropical dredger-reclaimed reef, by leaching the **coral** sand or the sea sand with the desalination seawater, the salt and alkali content is lowered, the cycle is short, and the cost is low; by covering the red nutrient soil, not only is the soil structure of the planting pit improved and the pH value of the **coral** sand or the sea sand lowered, but also the red nutrient soil can be served as a bottom salt and alkali isolation layer; by using the **coral** sand and the sea sand as planting soil, not only is the cost saved, but also the original ecology of the reef is guaranteed; according to the planting technology, the survival rate of the transplanted **nursery** stock on the newly-built dredger-reclaimed reef is raised to 95% or above.

7. Special feed for **breeding** **coral** snakes, and preparation method thereof — CN106578560 — 2016-10-28 — PAN SHENGWEN — 2017-04-26 — 2017-04-26

The invention discloses a special feed for **breeding** **coral** snakes. The special feed is prepared from finless eels, frogs, mice, shrimp powder, a traditional Chinese medicine liquid, a feed attractant, composite vitamins, composite amino acids and composite trace elements, wherein the traditional Chinese medicine liquid is prepared from honeysuckle flowers, Folium Isatidis, Isatis Root, chrysanthemum flowers, hawthorn fruit, Atractylodes lancea and Cortex Magnoliae Officinalis. The invention also provides a preparation method of the special feed for culturing **coral** snakes. The method comprises the steps of crushing, mixing and shaping. The special feed for **breeding** **coral** snakes is rich in energy, proteins and mineral matters, contains complete kinds, a sufficient quantity and proper proportions of various nutrient substances, and contains comprehensive nutrient substances, and the added traditional Chinese medicine liquid has the efficacy of clearing heat and detoxifying, and digesting foods and strengthening the stomach, so the special feed can reduce the use amount of the antibiotics, enhance the body immunity of the **coral** snakes, improves the quality and the flavor of **coral** snake meat, and accelerates the growth speed of the **coral** snakes, thereby improving the **breeding** economic benefit of the **coral** snakes.

8. Substrate for the settlement of **coral** larvae — CO2017003233 — 2017-03-31 — FUNDACION UNIVERSITY DE BOGOTA JORGE TADEO LOZANO* — 2018-04-10 — 2018-04-10

The invention relates to a substrate for the settlement of **coral** larvae, consisting of a system comprising three plates couplable to known aquariums and traps, which are adapted depending on the settlement stage, the first plate having a high-relief ceramic substrate, the second plate having a low-relief ceramic substrate, and the third plate having a double-faced high-relief ceramic substrate, the three plates having textures similar to the calcareous skeletons of **coral**, both in size and in proportion by stages. The internal texture of the substrates has an engraving similar to that of the calcareous skeletons of **coral**, the internal area delimiting the settlement of the larvae, allowing the concentration of same, and having high- and low-relief surfaces with straight edges and a controlled thickness for the manipulation of same in laboratories, aquariums and in the field. High- and low-relief surfaces are obtained, thus allowing the **coral** species that attach themselves inside the substrate to be kept alive, as it is possible to contain the water needed to keep same alive. The high and low reliefs have an external perimeter border that allows the substrates to remain secured during transport and immersion activities.

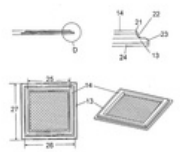


FIG. 4

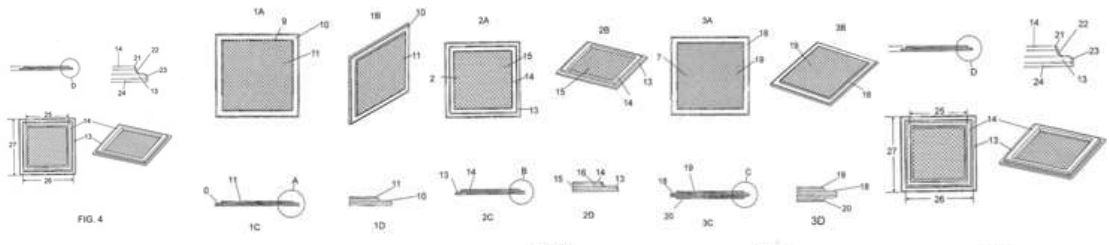
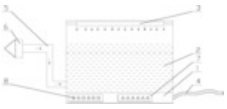
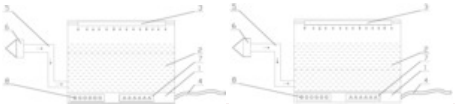


FIG. 4 FIG 1 FIG 2 FIG 3 FIG 4

9. Hard **coral breeding** device of deer horn CN204722046 2015-06-02 HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* 2015-10-28 2015-10-28

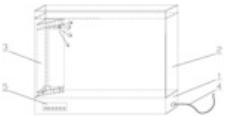
The utility model belongs to the technical field of **breeding** device's technique and specifically relates to a hard **coral breeding** device of deer horn, has square base and installs square breed jar above that, the top of square breed jar be provided with the fluorescent lamp of lightmap jar water -logging, square breed jar is made by clear glass, the lateral wall of square base on be connected with the electric wire, the plug of electric wire head cause after being connected with outside socket square base to square breed jar transmission heat, the lateral wall bottom of square breed jar is connected with carbon dioxide input pipeline, the other end of carbon dioxide input pipeline be provided with the carbon dioxide generator. This hard **coral breeding** device of deer horn provides comfortable living environment for hard **coral**, can improve the survival rate of hard **coral** greatly.

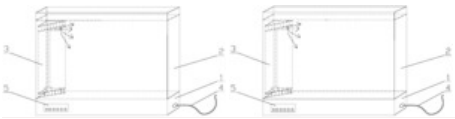




10. Soft **coral breeding** device CN204968959 2015-06-02 HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* 2016-01-20 2016-01-20

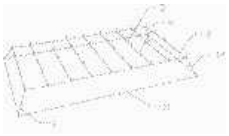
The utility model belongs to the technical field of **breeding** device's technique and specifically relates to a soft **coral breeding** device, has square base and installs square culture tank above that, square culture tank's arbitrary corner be provided with vertical water pump, square culture tank is made by clear glass, the lateral wall of square base on be connected with the electric wire, plug and the outside socket connected carried forward of electric wire head cause square base to square culture tank transmission heat. This soft **coral breeding** device provides comfortable living environment for soft **coral**, can improve the survival rate of soft **coral** greatly.

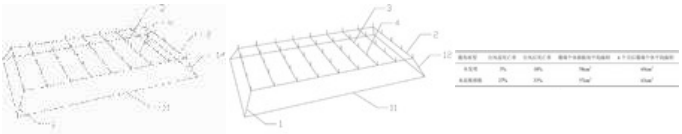




11. Near-shore cultivating and **breeding** method and device suitable for dendroidal hermatypic **coral** CN102499193 2011-12-01 SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* 2012-06-20 2012-06-20

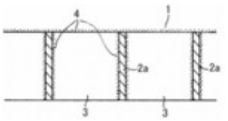
The invention discloses a near-shore cultivating and **breeding** method and device suitable for dendroidal Hermatypic **coral**. The method comprises the steps of: fixing a dendroidal Hermatypic **coral** attaching device onto flat reef bottom or gravel bottom at the seabed of a shallow and near-shore sea area with water depth of 2-10 m at the time of low tide, wherein the dendroidal Hermatypic **coral** attaching device comprises an attaching frame and a supporting rack thereof, multiple attaching strips are arranged in the attaching frame, and multiple attaching branches are fixed on the attaching strips; and binding the dendroidal Hermatypic **coral** to the attaching branches in a ramification manner, so that the dendroidal Hermatypic **coral** grows in the ramification manner 15-20 cm away from the seabed. As compared with dendroidal Hermatypic **coral** subjected to traditional cement block transplanting, the dendroidal Hermatypic **coral** cultivated by the near-shore cultivating and **breeding** method suitable for dendroidal Hermatypic **coral** has the advantages of low mortality, high survival rate, higher growth rate and more healthy **coral** condition.

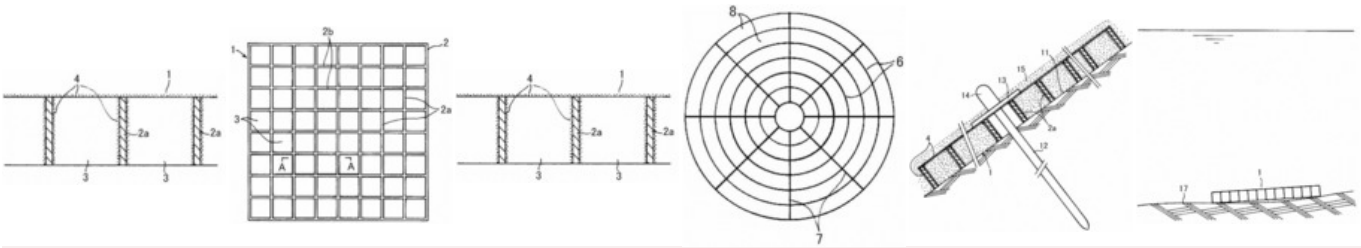




12. Structure for stabilizing slope or for **breeding**/culturing **coral** and marine algae JP2012165682 2011-02-14 DAIKURE* 2012-09-06 2012-09-06

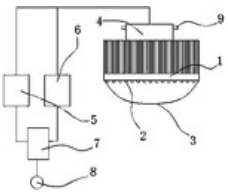
PROBLEM TO BE SOLVED: To provide a structure capable of securely holding a vegetation base material made from additional soil and seeds, etc. when the structure is used as a pressure receiving structure, and capable of securing implantation and **breeding**/culture of **coral** larva and marine algae when the structure is used for **breeding**/culturing **coral** and marine algae.SOLUTION: A board body 2 is composed of a grid-like structure made of FRP including vertical ribs 2a and lateral ribs 2b with numerous rectangular openings 3 formed in the vertical and lateral directions. Silica sand 4 containing a resin adhesive is blown and fixed to all the surfaces excluding the lower surface of the board body 2, which means the upper surface and four surrounding side surfaces of the board body, and four surfaces forming each opening 3 in such a way as indicated in Fig.2, to make the surfaces coarse mesh.

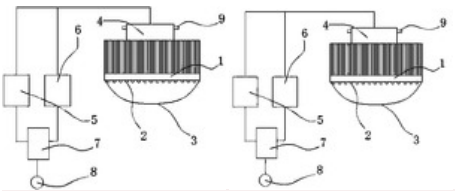




13. Led lamp used for artificial **breeding** of **coral** CN203963711 2014-07-18 QIN JI 2014-11-26 2014-11-26

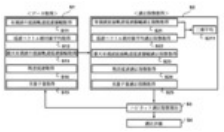
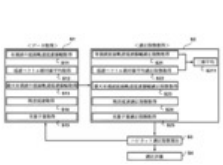
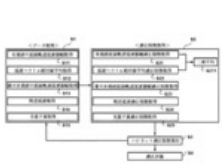
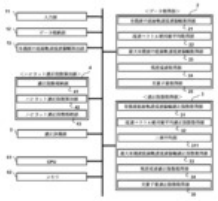
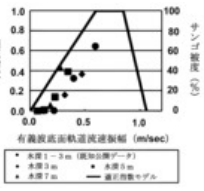
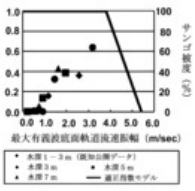
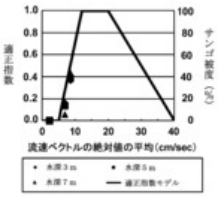
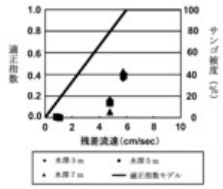
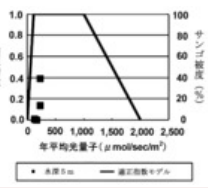
The utility model discloses an LED lamp used for artificial **breeding** of **coral**. The LED lamp comprises a lamp body part, a power part, a timer and a plug. The lamp body part is composed of an aluminum substrate radiator, an LED lamp bead assembly, an LED lens and a radiator fan, wherein the LED lamp bead assembly is arranged on the bottom surface of the aluminum substrate radiator, the LED lens is arranged at the bottom of the aluminum substrate radiator, and the radiator fan is arranged on the top of the aluminum substrate radiator. The power part is composed of a first thyristor power supply and a second thyristor power supply, wherein the first thyristor power supply and the second thyristor power supply are in electric connection with LED lamp beads on the LED lamp bead assembly. The first thyristor power supply and the second thyristor power supply are respectively in electric connection with the timer. The plug is in electric connection with the timer. Two circuits are adopted for the LED lamp, a timing function and a full-spectrum effect are set, in this way, output power is high, furthermore, the changes of the illumination during different periods of time can be simulated, and the growth conditions of the **coral** are optimized. In addition, the LED lamp has the advantages of being long in service life, low in energy consumption and heat production, economical, capable of saving energy and the like, and therefore the LED lamp can be applied to artificial **breeding** of the **coral** in a large area.





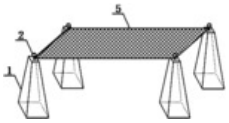
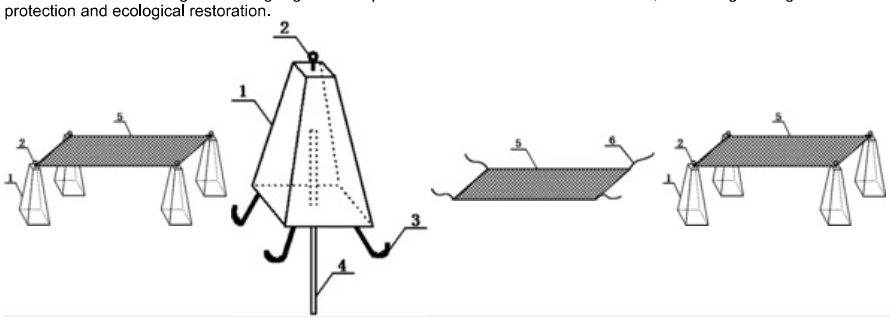
14. **Coral** habitat suitability evaluation method and **coral** growing place suitability evaluation system, and **coral** reef regeneration method — JP2015116153 — 2013-12-18 — KAJIMA* — 2015-06-25 — 2015-06-25

PROBLEM TO BE SOLVED: To provide means in which a point suitable for growth of **coral** in a sea area can be predicted and evaluated with high accuracy.SOLUTION: A **coral** habitat suitability evaluation method is provided for evaluating suitability as a **coral** habitat. The **coral** habitat suitability evaluation method includes a step of evaluating the suitability based on the bottom track flow rate amplitude of a significant wave in a candidate point defined by a location and a water depth. The suitability as the **coral** habitat is evaluated based on the bottom track flow rate amplitude of the significant wave in the candidate point, and thereby the suitability evaluation in the water depth direction at each position in a sea area is made possible, and the point suitable for the growth of the **coral** can be predicted and evaluated with high accuracy. Also, the suitability may be evaluated based on a habitat suitability index. In that case, the habitat suitability index is calculated by using each suitability index model of the significant wave bottom track flow rate amplitude, a flow rate vector average absolute value, a maximum significant wave bottom track flow rate amplitude, a residual flow rate, and an amount of photon.

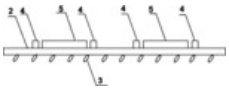
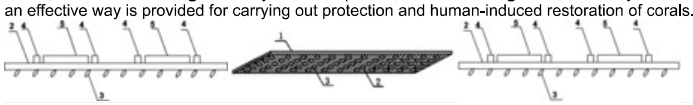
15. Movable type **coral breeding** device — CN204070163 — 2014-11-12 — HAINAN UNIVERSITY* — 2015-01-07 — 2015-01-07

The utility model belongs to the technical field of marine ecological environment human-induced restoration, and relates to a movable type **coral breeding** device. The movable type **coral breeding** device comprises foundation pillars and a **breeding** net. The foundation pillars are designed to be of a cone-frustum-shaped structure. A supporting pillar is arranged at the lower portion of the lower bottom face of each foundation pillar, and supporting hooks are arranged on the periphery of the lower bottom face of each foundation pillar. A fixing piece is arranged on the top of each foundation pillar. The **breeding** net is designed to be of a mesh structure. The four corners of the **breeding** net are each provided with a rope. The movable type **coral breeding** device is simple in structure, the mesh-type **breeding** net is adopted, and the **breeding** mode that preliminary **coral breeding** is carried out on a sea area with the good environmental condition in advance, and then bred corals are moved to a sea area where ecological restoration is needed to be fixed is adopted, so that the preliminary **coral breeding** is less affected by the environment, and the movable type **coral breeding** device has the advantages of being high in multiplication rate and convenient to move, facilitating management and the like, and is of great significance in **coral** reef protection and ecological restoration.

16. **Coral breeding** light control device for controlling illumination angle of light — CN204120012 — 2014-09-09 — HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* — 2015-01-28 — 2015-01-28

The utility model provides a **coral breeding** light control device for controlling the illumination angle of light. The **coral breeding** light control device comprises a frame and a cooling plate installed on the frame. A plurality of rows of lamp beads are arranged on the plain surface of the cooling plate, each row of lamp beads comprises a plurality of lamp beads, the lamp beads are installed on the cooling plate in an inclined mode, and the included angle between each lamp bead and the cooling plate ranges from 50 degrees and 70 degrees. The **coral breeding** light control device is simple in structure, convenient to install, low in cost and durable. By optimizing the angle of the lamp beads, the **coral breeding** efficiency can be improved, **coral breeding** is not limited by external conditions easily, a large number of corals can be quickly bred indoors, and an effective way is provided for carrying out protection and human-induced restoration of corals.

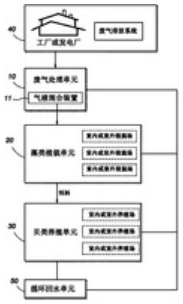



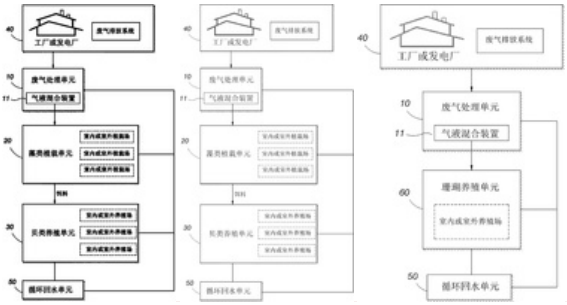
17. Formula and preparation process of **coral** broken limb **breeding** base — CN106938919 — 2017-03-23 — XIAMEN O TANGVILLE BIOLOGICAL TECHNOLOGY* — 2017-07-11 — 2017-07-11

The present invention discloses a formula and a preparation process of a **coral** broken limb **breeding** base. According to the present invention, the base meeting the **coral** broken limb **breeding** requirement is prepared by using alumina, magnesia, quartz, calcium carbonate, nickel oxide and strontium oxide as main materials and combining with a dispersant, an adhesive, a plasticizer and the like, cannot affect the **coral** growth, and has high adhesion so as to easily achieve the **coral** growth; and the components are optimized according to the **coral** skeletal components, such that the base cannot repel the **coral**.

18.	Method and system for fixing carbon dioxide by combining shellfish or **coral breeding**	CN103301746	2012-03-16	GREEN DING BIOTECHNOLOGY*	2013-09-18	2013-09-18

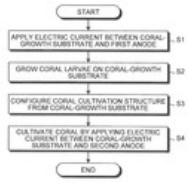
The invention relates to a method and system for fixing carbon dioxide by combining shellfish or **coral breeding**. The invention aims to fix carbon by utilizing a shellfish or **coral breeding** system, so that the carbon dioxide in the waste gas is absorbed, and the carbon in the carbon dioxide can be semi-permanently fixed. The method provided by the invention comprises the following steps: dissolving carbon dioxide in the waste gas in water through a mist spray washing method, cultivating algae by utilizing water containing carbon dioxide, and providing the algae for the shellfish to serve as foods required by growth, or directly providing the algae for symbiotic algae of corals for growing the corals, wherein in the process, the carbon element in the carbon dioxide can be converted into the calcium carbonate as the main component of the shellfish and **coral** bones. Furthermore, because the calcium carbonate is difficultly decomposed, the carbon can be semi-permanently fixed, so that the aims of cultivation and environment friendliness can be fulfilled, and the method is a highly technical thought by utilizing the natural law and has a high industrial value.

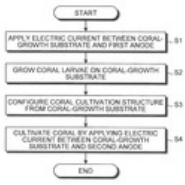


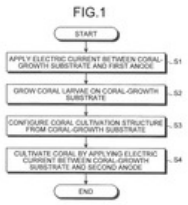


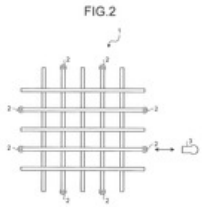
19.	**Coral** cultivation method, manufacturing method for **coral**-growth substrate precipitated with electrodeposited minerals, and **coral**-growth substrate	WO2010047394	2009-10-23	C P FARM ESTABLISHMENT OF TROPICAL MARI FOUNDATION TROPICAL MARINE ECOLOGICAL RESEARCH PROMOTION FOUNDATION MITSUBISHI HEAVY INDUSTRIES BRIDGE & STEEL STRUCTURES ENGINEERING MM BRIDGE* NIPPON CORROSION ENGINEERING* NIPPON CORROSION ENGINEERING C SHIPY FARM UNIVERSITY OF TOKYO*	2010-04-29	2010-04-29

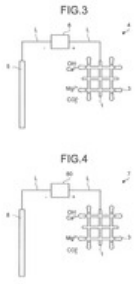
Disclosed are a **coral**-growth substrate provided in seawater for growing **coral**; a process for precipitating electrodeposited minerals in which an electrical current flows between the **coral**-growth substrate and a first anode electrically connected to the substrate and provided in the seawater, and electrodeposited minerals are precipitated on the **coral**-growth substrate; a **coral** larvae growth process for growing the **coral** larvae on the **coral**-growth substrate precipitated with the electrodeposited minerals; a structure construction process for **coral** cultivation for constructing a **coral** cultivation structure from a plurality of the **coral**-growth substrates which grow the **coral** larvae; and a **coral** cultivation process for cultivating **coral** using a flow of electrical current between the **coral**-growth substrates which grew the **coral** larvae and a second anode.

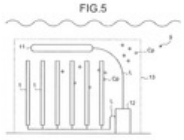


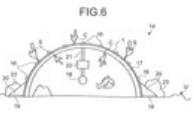


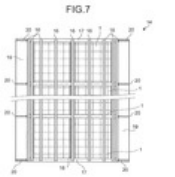


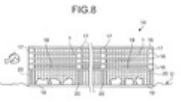


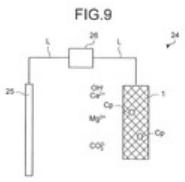


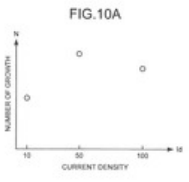


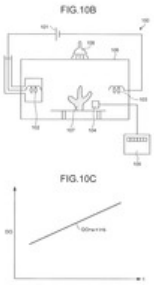


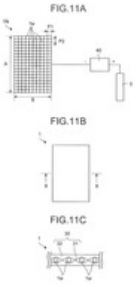






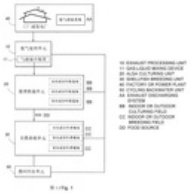


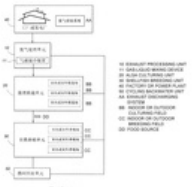


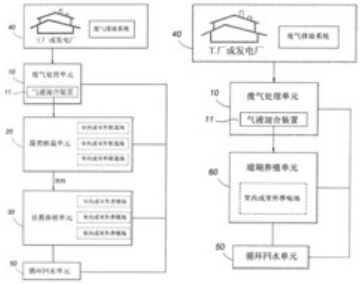


20. Method and system for carbon dioxide fixation by combining shellfish or **coral breeding** WO2013134953 2012-03-16 TOP GREEN BIO TECHNOLOGY* 2013-09-19 2013-09-19

The present invention relates to a method and system for carbon dioxide fixation by combining shellfish or **coral breeding**. The present invention aims to utilize shellfish or **coral breeding** systems for carbon fixation so as to absorb carbon dioxide content in exhaust, and carbon dioxide undergoes semi-permanent carbon fixation. The method provided in the present invention comprises dissolving the carbon dioxide in exhaust into water through a spray rinsing manner, utilizing the water containing carbon dioxide to culture algae, and then providing the algae to shellfish as a food source required for growth, or directly providing said water to symbiotic algae of **coral** to facilitate **coral** growth. During this process, the carbon element in carbon dioxide is transformed into calcium carbonate, the primary component of shellfish and **coral** skeleton. Calcium carbonate is not easily decomposed, and therefore semi-permanently fixes the carbon, thereby achieving both **breeding** and environmental protection concurrently. The invention is a highly technical idea of utilizing natural law and has substantial industrial value.

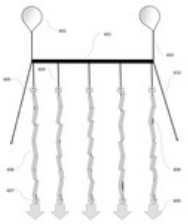


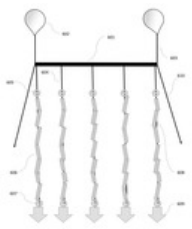




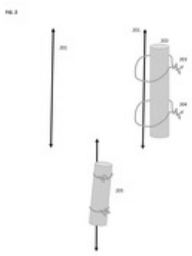
21. **Coral nursery** based on overgrowth of a tensioned line US20170196206 2017-01-12 ROSS ANDREW MACKAY 2017-07-13 2017-07-13

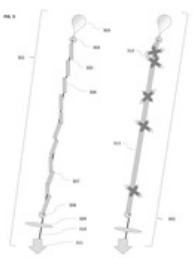
A rapidly deployable underwater **coral** cultivation system comprising a tensioned propagule support line or rod, and a propagule-encircling loop for attachment thereto, wherein the propagules' tissues and skeleton overgrow the line/rod. Multiple propagules of a single genetic clone on a line/rod may fuse into a single linear **coral** colony, whereby the natural structural and anti-fouling attributes of the target organism provide structural rigidity to the system and high survivorship of the live material in **nursery** culture. A preferred embodiment may provide a low to no maintenance protocol soon after deployment thereby allowing for “set and forget” through self-planting endpoints. In some embodiments, a vertical arrangement provides full leverage advantage to the support buoy as growth increases (**coral**) weight. In some embodiments, the vertically-oriented single genetic clone facilitates gamete capture for facilitated spawning in **coral** (ecosystem) enhancement and restoration.





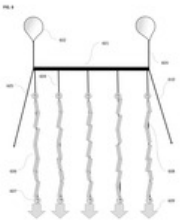








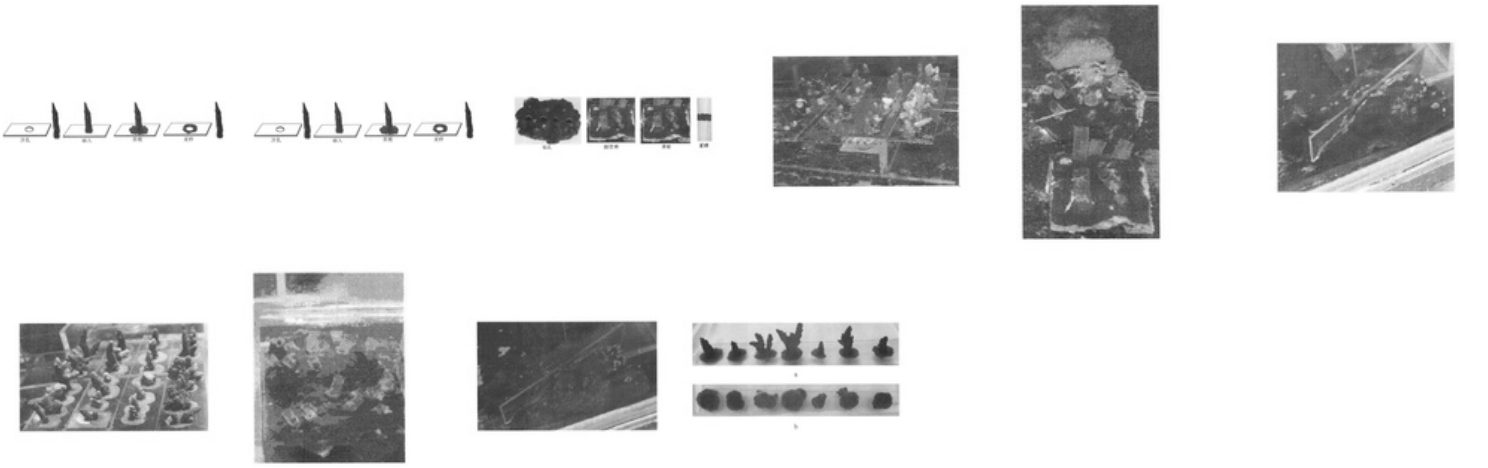




22. Method for cultivating new **coral** samples in indoor **coral** culture for scientific researches — CN102077809 — 2010-11-05 — QINGHAI INSTITUTE OF SALT LAKES CHINESE ACADEMY OF SCIENCES* — 2011-06-01 — 2011-06-01



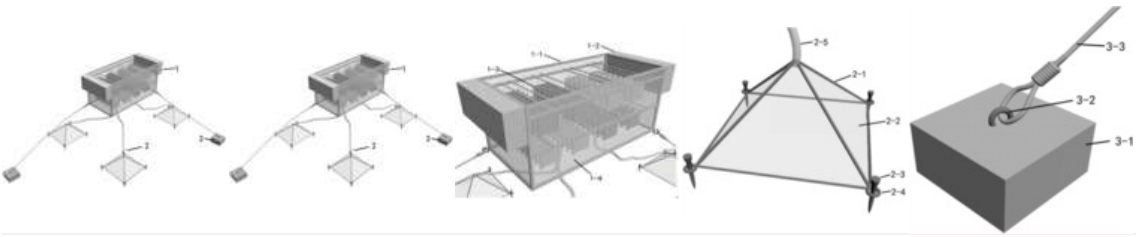
The invention relates to a method for cultivating new **coral** samples in indoor **coral** culture for scientific researches, which comprises the following steps of: (1) sampling, namely, cutting columnar corals into single branches, drilling holes on a polyethylene plate and inserting the **coral** branches into the drilled holes, or drilling the holes or reserving slots on blocky porites and inserting tubular or sheeted objects into the drilled holes or reserved slots; (2) cultivation, namely, placing the **coral** samples obtained by the step (1) into a cultivation system for cultivation, and stopping the cultivation when 200 to 1,000 milligrams of **coral** skeletons are deposited; and (3) the collection of the new **coral** samples, namely, pulling the **coral** branches out of the drilled holes, and strippingthe **coral** skeleton depositions off the polyethylene plate, or taking the tubular or sheeted objects out of the drilled holes or the reserved slots, and stripping the **coral** skeleton depositions off the tubular or sheeted objects, wherein the **coral** skeleton depositions are the new **coral** samples. The method is simple, convenient and easy; and the obtained new **coral** samples are well delimited from the conventional corals, and can be conveniently and effectively collected.



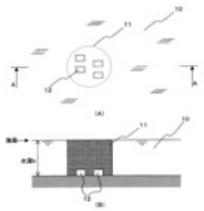
23. Floating type in-situ **coral** egg collecting and incubating device — CN108207714 — 2018-01-17 — GUANGXI MANGROVE RESEARCH CENTER* — 2018-06-29 — 2018-06-29



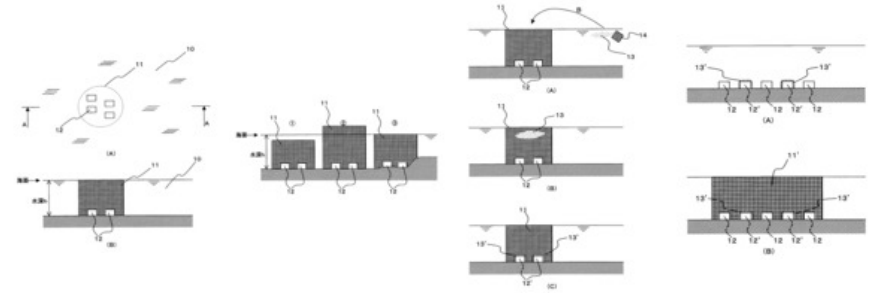
The invention discloses a floating type in-situ **coral** egg collecting and incubating device. The device is composed of a floating type incubator and a **coral** egg collecting net cover and is fixed through an anchor piece, and the floating type incubator and the **coral** egg collecting net cover are connected through a connecting pipe. By applying the device, the floating type incubator floats at the in-situ sea area with **coral** reefs, the **coral** egg collecting net cover is arranged on seabed corallites, **coral** gametes of different corallites of the same kind are gathered into the same net cage throughthe connecting pipe, and the insemination probability can be increased. **Coral** egg collection, incubation and attachment can be completed with manual intervention as little as possible, and the **coral** propagation success rate is greatly increased; meanwhile, the device is only placed at the **coral** ovulation time, the sea standing time is short, the **coral** and marine environment damage probability is small, the cost is low, and large-scale popularization can be achieved.



24. **Coral-breeding** method — JP2003219751 — 2002-01-30 — TETRA* — 2003-08-05 — 2003-08-05



PROBLEM TO BE SOLVED: To provide a **coral-breeding** method by which planulae incapable of contributing to the **breeding** of **coral** due to the advection and diffusion of the planulae to an offshore and a land can effectively be used to imbed at a high imbedding rate and simply realize the **breeding** of the **coral** at a low cost.
SOLUTION: This **coral-breeding** method is characterized by disposing a diffusion-preventing means 11 which prevents or depresses the diffusion of floating **coral** spawns and/or planulae and whose bottom portion is opened not to prevent the planulae from precipitating and imbedding in an imbedding base 12, in a sea area 10 on whose sea bottom has the imbedding base 12 in which the planulae of the **coral** can imbed, charging the **coral** spawns and/or planulae or sea water in which the **coral** spawns and/or planulae float, in an area surrounded with the diffusion-preventing means 11 to form the area containing the **coral** spawns and/or planulae in high concentrations, and maintaining the high concentration area for a constant period to imbed the **coral** planulae in the imbedding base 12.
COPYRIGHT: (C)2003,JPO



25. Suitable for greening vines reefs **coral** and methods of making a light matrix seedling — CN108633692 — 2018-05-10 — SOUTH CHINA BOTANICAL GARDEN OF THE CHINESE ACADEMY OF SCIENCES* — 2018-10-12 — 2018-10-12

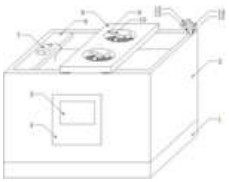
Suitable for use in the present invention discloses a method for planting **nursery** light **coral** reefs of the vines and methods of making substrates, comprising selecting a water retention of the fertilizer to still lightweight breathable and a coco peat humus is a raw material for the master, formulated in a certain ratio, to form a light-weight water-retaining a mulch matrix. Wherein the humus is in the fallen leaves are for composting waste: loam: wood ash to 4:1-ratio of 2:1 for composting obtained. The present invention has the following advantages: the formulation materials both lightweight and water retention, grown vine saplings rhizoplana developed, stem diameter, miao zhuang, good bud differentiation; emerged growth trim; mitigate shipping and handling the load, reducing the number of watering; and transplant rooting rate of the vines to increase the survival rate of saplings after reefs, reduce pest, a pesticidally reduced amount. The preparation method is simple, fully utilizes the natural wastes, easy to implement.

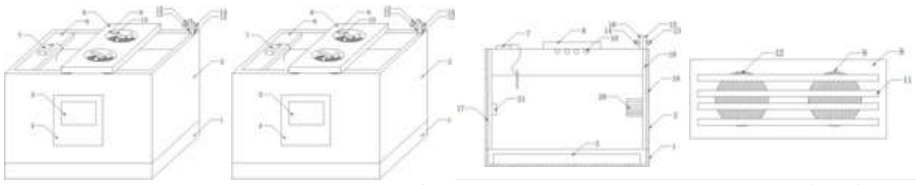
26. **Coral** colonies transplantation system and devices for said method. — MX2014008329 — 2014-06-25 — MIGUEL ANGEL GARCIA SALGADO — 2018-01-18 — 2018-01-18

The present disclosure is related to a method for **coral** transplantation and the devices to perform the same, contemplating the installation of **coral** colonies nurseries using a tubular structure called **coral nursery** and a system for fixing **coral** fragments to male connectors (internal screw threads) and three techniques for the **coral** colonies transplantation and grown in the nurseries; to then transplant them within the reef with the objective of restoring damaged reefs by environmental and human impacts. The transplantation techniques consist of: Direct cementing of the connectors with the new colonies to the seafloor, cementing and installing female connectors for very strong wave conditions and transplantation with the use of a cement base with a female connector for places where the sea floor is hard and the perforation is complicated.

27. Soft **coral breeding** device CN207219849 2017-09-22 HAINAN TROPICAL OCEAN UNIVERSITY* 2018-04-13 2018-04-13

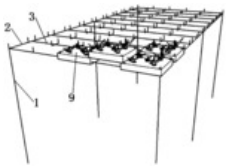
The utility model discloses a soft **coral breeding** device, including heating seat and box, the bottom of box and heating seat's top fixed connection, heating seat's inside fixed mounting has the electric plate, and the middle part fixed mounting of box one side has flush mounting plate of switch, and the top fixed mounting on flush mounting plate of switch surface has temperature monitor, and the avris on box top is fixed and is equipped with first fixed plate. The utility model discloses the temperature sensor who is equipped with, temperature sensor and temperature monitor electric connection, personnel pass through the obviously temperature of the internal portion's water of surveillance box of temperature monitor, cross when low when the water temperature, heat the water through the inside electric plate that is equipped with of heating seat, when the water high temperature, can pour into cold water into to the cold water pipe through the inlet tube, logical subcooled water pipe carries out rapid cooling to the water of box inside, it monitors soft **coral** aquaculture water body's temperature to be convenient for personnel, avoid the high temperature to lead to soft **coral** dead, soft **coral breeding** device's survival rate has been improved.

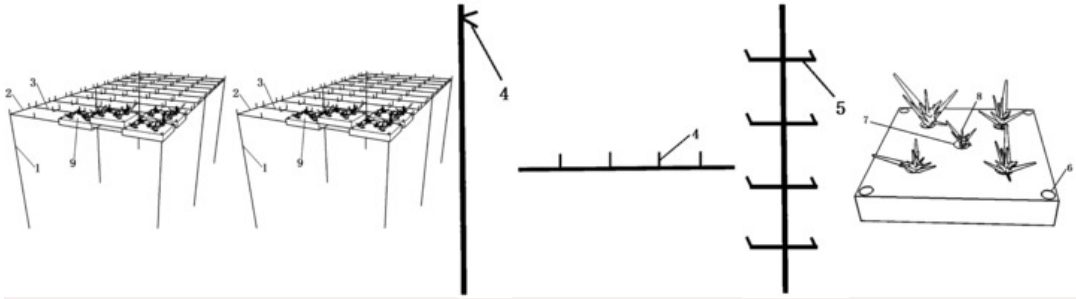




28. Underwater corallum cultivation **nursery** garden and application thereof CN103858799 2014-03-14 GUANGXI MANGROVE RESEARCH CENTER* 2014-06-18 2014-06-18

The invention discloses an underwater corallum cultivation **nursery** garden. The underwater corallum cultivation **nursery** garden comprises a seedbed and transplanting blocks which are laid on the seedbed, wherein the seedbed is of a steel pipe frame structure and is formed by socket connection of vertical pipes, transverse pipes and longitudinal pipes, and the transplanting blocks are provided with transplanting grooves for placing the corallum. The underwater corallum cultivation **nursery** garden has the advantages that the fragments and larvae of corals can be bred in situ to have a period of adaptation and then are transplanted when the corals grow to proper size, so that the **coral** transplanting survival rate can be effectively improved; since a **coral nursery** garden is a small ecological system, the conservation of species can be facilitated, the habitat is prevented from being degenerated and the diversity of communities is improved. The underwater corallum cultivation **nursery** garden has an important application value in the aspects of sea area and coastal zone ecological restoration, especially restoration, repair and reconstruction of **coral** reefs and ecological systems thereof.



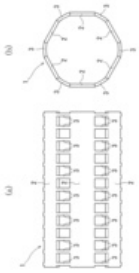


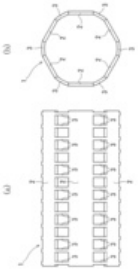
29. **Coral** artificial **breeding** control system CN204949140 2015-09-25 HANGZHOU LENGBEIGUAN TECHNOLOGY* 2016-01-13 2016-01-13

The utility model discloses a **coral** artificial **breeding** control system, including data acquisition monitoring unit, data preprocessing and memory, central controller, add salt device, oxygenerator, light - regulator, heat refrigeration plant, circulating water pump, marine alga interpolation device, alarm, high in the clouds server, the data acquisition monitoring unit includes salinity sensor, photosensitive sensor, temperature sensor, oxygen bearing level sensor, water environment monitoring ware, pressure sensor, hydrodynamic force monitor, chlorophyll fluorescence appearance, marine alga monitor, high definition digtal camera, **coral** monitor.

30. Structure for **coral** adhesion, and **coral** adhesion method and **coral** reef growing method by using the structure JP2010000040 2008-06-20 KAJIMA* TAKIRON* 2010-01-07 2010-01-07

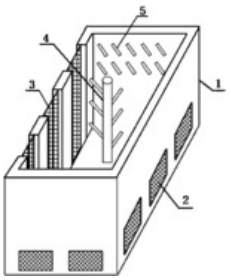
PROBLEM TO BE SOLVED: To provide an easily installable low-cost structure for **coral** adhesion by adhering corals on the inner face of a pipe 1, and to provide a **coral** adhesion method and a **coral** reef growing method by using the structure.
SOLUTION: A **coral** adhesion structure composed of a pipe 1 having a circumferential wall made of broad warps 2 and narrow wefts 3 is placed on the sea bottom, the pipe 1 is separated to each warp 2 after the adhesion and growth of corals on the inner face of the warp 2, and the pipe is turned inside out and again placed on the sea bottom to grow a **coral** reef.
COPYRIGHT: (C)2010,JPO&INPIT

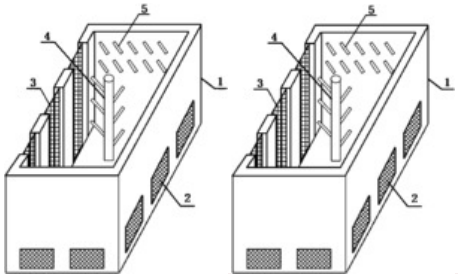




31. Facility is bred to morning and evening tides **coral** CN204930017 2015-08-26 LIHONG WU* 2016-01-06 2016-01-06

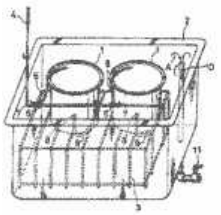
The utility model belongs to an ecological environment artifical repair technology field in ocean relates to a facility is bred to morning and evening tides **coral**, including **breeding** the pond, breed the pond and set up latticed water exchange mouth on the positive pool wall in sea, breed the pond terrestrial positive interval of orientation paling, set up in **breeding** the pond and breed the tree, breed to set to go up to set up and carry the reproduction branch that adheres to the circle. The utility model discloses simple structure through **breeding** the pond in the seashore construction, utilizes the reproduction pool wall to block the ocean wave, utilizes the oceanic tide to change and changes for the water of **breeding** the pond, and it provides the reproduction that quality of water is transparent, the stormy waves is less environment to breed for the **coral**, has solved the problem that current open -air reproduction mode existed, and be significant to **breeding** of **coral** and ecological remediation.

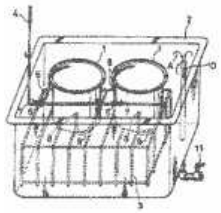




32. Culture of precious **coral** using deep sea water, culture apparatus and transportation of **coral** JPH06225663 1993-02-04 KOCHI PREF GOV* 1994-08-16 1994-08-16

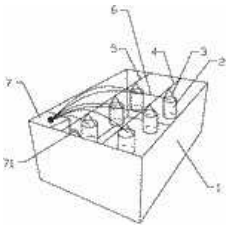
PURPOSE:To obtain a **breeding** method, **breeding** apparatus and transportation method to stably keep the nature of seawater as a **breeding** environment in the artificial **breeding** of precious **coral** and realize the artificial **breeding** of precious **coral** for a necessary sufficient period for the proliferation of the precious **coral**. CONSTITUTION:Natural precious **coral** collected in sea is placed in a **breeding** water tank 1 and deep seawater sucked from the deep sea layer of >=100m depth is introduced to and circulated through the water tank to effect the artificial **breeding** of precious **coral**. The precious **coral** is fixed on an artificial base. Artificial management such as supply of feed and the control of temperature is carried out to effect the proliferation of the colony by self-division and the oviposition, the larva is fixed and grown on the artificial base in the **breeding** water tank and the grown **coral** is transferred, transplanted and fixed to the sea bottom. The precious **coral** is transported by wrapping the **coral** with a nonwoven cloth and sealing in a polyethylene bag containing seawater maintained at about 25-0 deg.C to ensure the survival in transportation and keep the vitality of the precious **coral**.

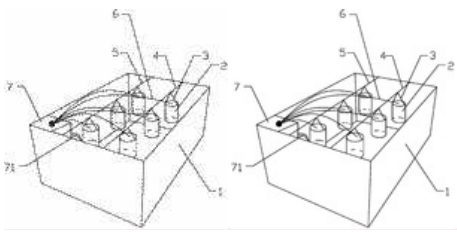




33. Culture method and culture device used before attachment of **coral** oosperms CN102487898 2011-12-01 SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* 2012-06-13 2012-06-13

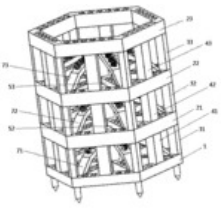
The invention discloses a culture method and a culture device used before attachment of **coral** oosperms. A plurality of culture round tubes are arranged in a seawater container; one end of each culture round tube is sealed by a filter screen, and the other end of each culture round tube is provided with an opening; each culture round tube is placed in the seawater container in a manner that the filter screen end of each culture round tube is downward and the opening end of each culture round tube is upward; fresh and clean seawater is added into the seawater container, and the water temperature of the seawater is maintained at 27-28DEG C, so that the filter screen end of each culture round tube is in the seawater, and the opening end of each culture round tube is exposed to the water surface, so that the culture water surface area in each culture round tube is 176-314cm<2>; the **coral** oosperms are poured into the culture round tubes along with the seawater, wherein the number of the **coral** oosperms in each culture round tube is 1,000-1,500; the seawater in the culture round tubes and the seawater container is frequently replaced so as to maintain the cleanness of the culture environment; and if dead and albescent individuals of the **coral** oosperms exist, the dead and albescent individuals are sucked out, and culture based on such a method is carried out until the **coral** oosperms develops to planula. By utilizing the method and device disclosed by the invention to culture the **coral** oosperms, the survival rate of the **coral** oosperms can be greatly improved.

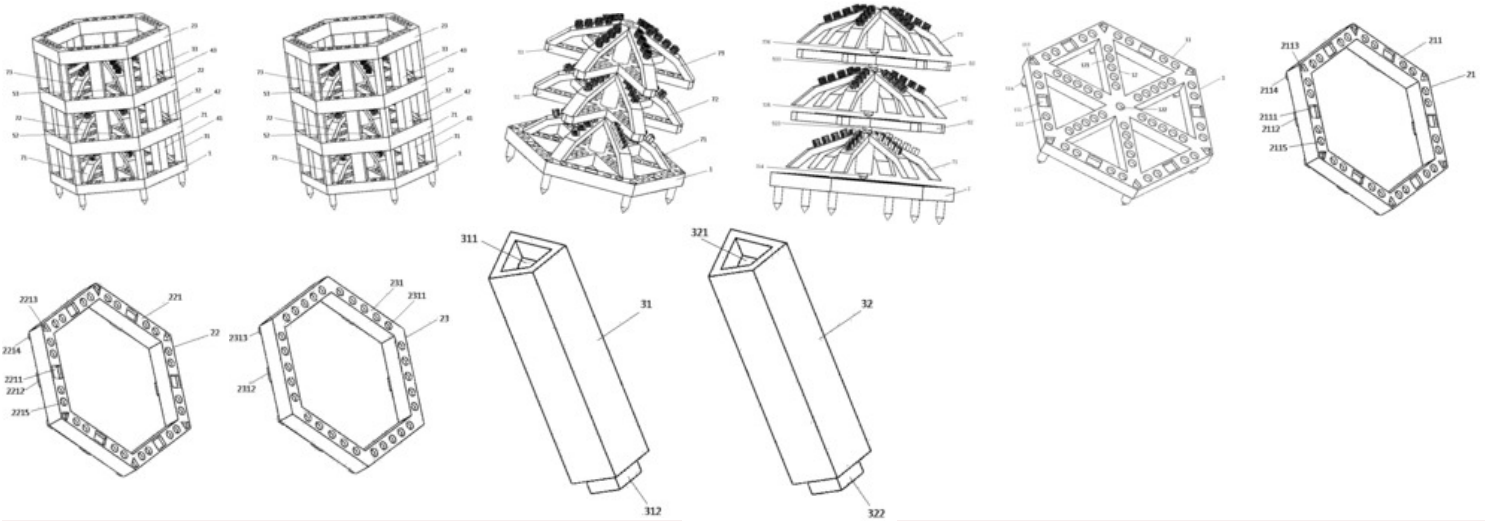




34. Mixed red **coral** planting reef CN103988794 2014-01-13 SHANGHAI UNIVERSITY* 2014-08-20 2014-08-20

The invention discloses a mixed red **coral** planting reef which comprises a red **coral** planting reef body. The mixed red **coral** planting reef is characterized in that the red **coral** planting reef body is formed by a base, a lower layer outer wall, a middle layer outer wall, an upper layer outer wall, lower polygon outer wall lateral columns, middle polygon outer wall lateral columns, upper polygon outer wall lateral columns, lower square outer wall lateral columns, middle square outer wall lateral columns, upper square outer wall lateral columns, a lower middle partition plate, an upper middle partition plate, a lower **breeding** support, a middle **breeding** support and an upper **breeding** support, and the parts are assembled and combined in an embedded connection mode and fixed in a bonded mode through concrete. The mixed red **coral** planting reef can provide a safe growth environment for red corals and can serve as a common fish reef to lure fishes, and an imitated seabed ecological system is formed to promote growth of the corals while the fishing volume is increased. The mixed red **coral** planting reef can be suitable for being applied in a coastal water area with any water depth.



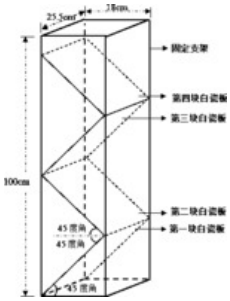


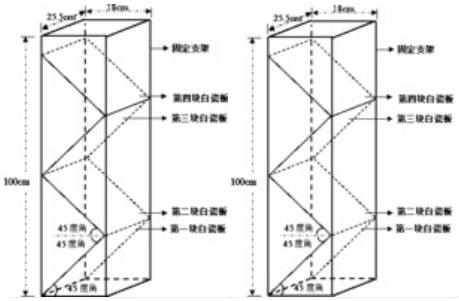
35. Artificial reproduction method of soft **coral** CN104285900 2014-09-25 SUZHOU XIANGCHENG NEW TIMES SPECIAL AQUACULTURE FARM* 2015-01-21 2015-01-21

The invention discloses an artificial reproduction method of soft **coral**. The artificial reproduction method specifically comprises the first step that substrata which never be used or already dried are selected and cleaned through distilled water; the second step that water in a tank is contained in two buckets, one bucket is used for containing cut branches, and the other bucket is used for containing branches already fixed; the third step that lopping is carried out on the selected **coral** stock plants, the whole soft **coral** plant is cut to the half position of a main trunk in all directions, and then the soft **coral** is placed in the environment with good water quality and flow; the fourth step that after all cut sections are healed, child plants can be cut out through sharp scissors; the fifth step that the cut child plants are placed in the bucket filled with water, and then the child plants are attached to the substrata and placed in the bucket. Through the artificial reproduction method of the soft **coral**, scientific technologies are adopted in the growth process of the soft **coral** for quick reproduction of the soft **coral**, and therefore the requirement for the soft **coral** of people can be met.

36. Sexual artificial propagation technique for hermatypic corals CN104026082 2014-06-26 GUANGDONG OCEAN UNIVERSITY* 2014-09-10 2014-09-10

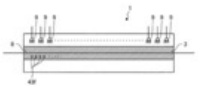
The invention discloses a sexual artificial propagation technique for hermatypic corals. The sexual artificial propagation technique for hermatypic corals includes: acquiring eligible healthy living parents of hermatypic coals in a natural sea area with hermatypic coal distributed in late March, cultivating hermatypic coal parents under manual control, placing a prepared **coral** planula attachment device in a parent cultivation aquarium when gonads of the **coral** parents develop to a stage IV, observing emission and attachment processes of **coral** gametes, moving the **coral** parents to other aquariums for temporary rearing after emission of the gametes is finished, and cultivating larvae of the hermatypic corals under manual control. The sexual artificial propagation technique for the hermatypic corals has the advantages that the **coral** larva survival rate is high, the planula attachment device is stable, the larva natural attachment rate is high, cultivation technical conditions are easy to control and implement, the problems in transplantation of the hermatypic corals when **coral** reef degeneration is solved and **coral** reefs are recovered are avoided, and effective solutions can be provided for recovery of the **coral** reef ecosystem and protection of the marine ecosystem.

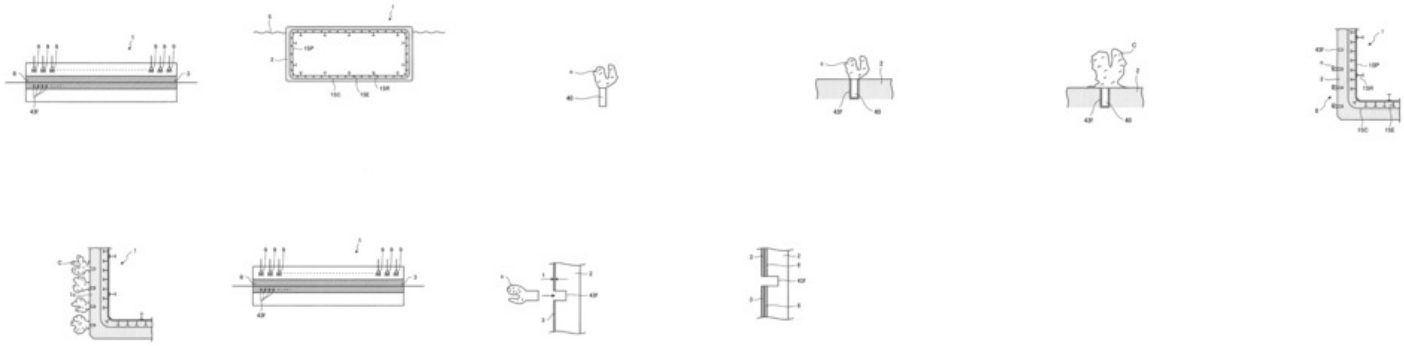




37. Structure for raising **coral** | JP2007110976 | 2005-10-20 | CP FARM* MITSUBISHI HEAVY INDUSTRIES BRIDGE & STEEL STRUCTURES ENGINEERING* | 2007-05-10 | 2007-05-10

PROBLEM TO BE SOLVED: To provide a structure for raising **coral** in which the attachment of organisms disturbing the growth of the **coral** can be suppressed.
SOLUTION: The structure 1 for raising the **coral** is provided with a **coral** raising part 8 in which transplanting holes 43 for transplanting offspring **coral** are bored. The **coral** raising part 8 is composed of concrete and the offspring **coral** is transplanted therein and grown in the sea. At least the periphery of parts where the offspring **coral** is transplanted of the **coral** raising part 8 is coated with a fluororesin to form a coated layer 3. The attachment of algae, shellfishes, etc., disturbing the growth of the **coral** is suppressed by the coated layer 3.
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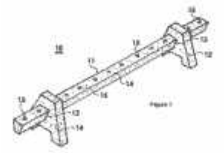


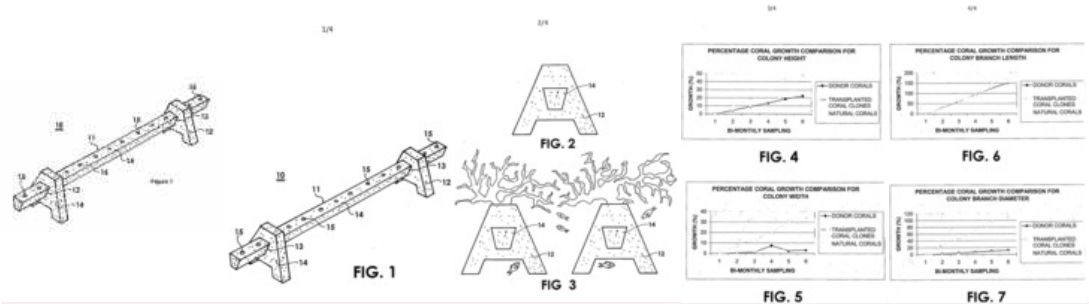
38. Design mode for types and spatial positions of **coral** reef forming organisms | CN102405856 | 2011-08-29 | SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* | 2012-04-11 | 2012-04-11

The invention provides a design mode for types and spatial positions of **coral** reef forming organisms. The invention adopts a technical scheme that comprises: 1) selecting an active **coral** reef and spatial position of the active **coral** reef in a small **coral** reef ecological ornamental tank; 2) selecting the main producer, namely kelp, in the small **coral** reef ecological ornamental tank and the spatial position of the kelp; 3) selecting consumer organisms in the small **coral** reef ecological ornamental tank and the spatial position of the consumer organisms; 4) selecting coelenterates which coexist with zooxanthella in the small **coral** reef ecological ornamental tank and the spatial position of the coelenterates; and 5) determining species which are not suggested to be grown in the small **coral** reef ecological ornamental tank. In the invention, based on the design of the biological functions of a **coral** reef ecological system, abiotic protective directories for different ecological niches and **coral** reef organisms which can be propagated artificially are selected with greatest effort and different spatial positions are designed reasonably, so that the small **coral** reef ecological ornamental tank becomes an artificial micro **coral** reef; and thus, the ornamental tank has an ornamental effect, is favorable for healthy **breeding** and maintains, protects **coral** reef from being damaged greatly and is legal.

39. Method and device for **coral** propagation and establishment of **coral** nurseries | WO2007123429 | 2007-04-24 | ALFECHE LEMUEL R;PELAEZ ERNESTO F;YAP SEVERO EDUARDO M | 2007-11-01 | 2007-11-01

The present invention relates to a method and device for **coral** propagation and establishment of **coral** nurseries, for massive restoration of damaged **coral** reefs and marine growth. The present device is cost effective and easy to install.

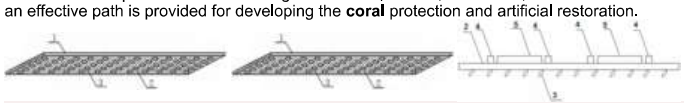




40. Indoor **coral** culture light control device | CN104221987 | 2014-09-09 | HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* | 2014-12-24 | 2014-12-24

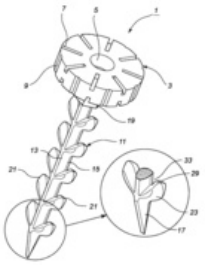
The invention provides an indoor **coral** culture light control device, which comprises a framework and a heat radiation plate arranged on the framework, wherein the flat light surface of the heat radiation plate is provided with a plurality of rows of lamp bead groups, each row of lamp bead group comprises a plurality of lamp beads, the lamp beads in each row of lamp beam group are selected from one kind or several kinds of lamp beads from blue light lamp beads, white light lamp beads, red light lamp beads, yellow light lamp beads and purple light lamp beads, and the color ranging of the lamp beads in each row of lamp bead group is different. The indoor **coral** culture light control device has the advantages that the structure is simple, the installation is convenient, the cost is low, the durability is realized, the **coral breeding** efficiency can be improved through optimizing the ranging mode of the lamp beads and/or the angle of the lamp beads, in addition, the effect cannot be easily limited by external conditions, the fast **breeding** of a great amount of **coral** in rooms can be realized, and an effective path is provided for developing the **coral** protection and artificial restoration.

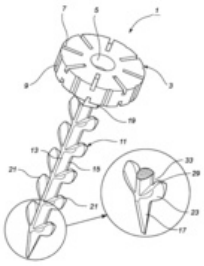




41.	**Coral** artificial multiplying tool, and method for artificially multiplying **coral**	JP2010011822	2008-07-07	IDEA CONSULTANTS*	2010-01-21	2010-01-21

PROBLEM TO BE SOLVED: To provide a **coral** artificial multiplying tool capable of being readily inserted into a gravel deposition bottom area and a sand and gravel bottom area, and stably fixed with hardly any risk of rolling with waves to be damaged or embedded once after being inserted.
SOLUTION: An inserting part 11 fixed to the lower side of a **coral** rearing part 3 has at least a pair of opposite or alternate wing-like barb projections 21 provided on the outer periphery of a body 13, and the distance between mutual vertically adjacent barb projections 21 is set at the diameter of branch-like **coral** or above. The outside lateral face 23 of the barb projections is a smooth curved surface bulged to the lower side, e.g. a contour line on the lower side of the outer lateral face of the barb projections appearing when viewed from the side is approximate to a circular arc locus with 1/2 of the distance between the mutual vertically adjacent projections as the radius; and the inside lateral face 29 of the inserting part is preferably a chevron-shaped state having a ridgeline in the central part.
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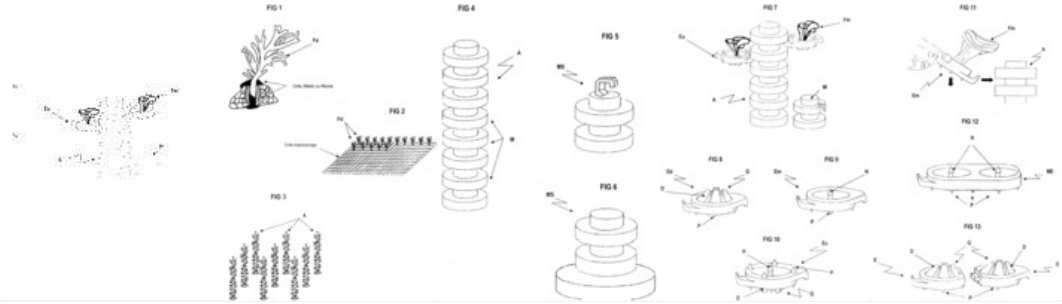




42.	Cutting support device for reproducing e.g. sarcophytons in marine environment, has support base integrally hooked to reproducing shaft, where hard or soft **coral** fragment is installed manually on support base without using external product	FR2937835	2008-11-04	MAHE THIERRY	2010-05-07	2010-05-07

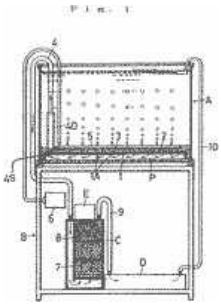
The device has a reproducing shaft (A) for receiving an universal cutting support base (Eu) on its entire periphery or a part of its periphery and on its entire height or a part of its height. The support base is integrally hooked to the reproducing shaft. The reproducing shaft has identical modules (M) that are assembled together to form a cylindrical shaft vertically immersed in marine environment. A hard **coral** fragment or a soft **coral** fragment (Fm) is installed manually on the support base without using an external product such as construction adhesive or resin.

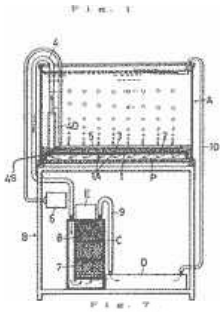


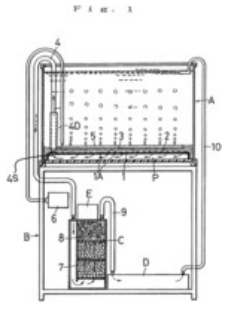


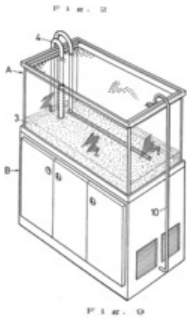
43.	Method of raising sea-water fish, display tank for sea-water fish and tank system for raising sea-water fish	GB9426284	1993-12-28	O D I ODI ODI MOUNTAIN VIEW* ODI YUGEN KAISHA	1995-02-22	1995-02-22

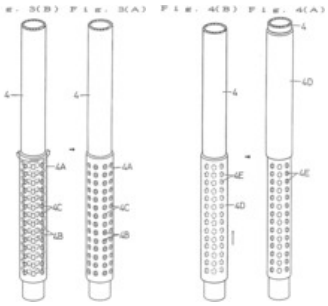
A method of raising sea-water fish is performed by raising the sea-water fish in water in a display tank which includes a device for circulating the water in the tank, a filtering material supporting plate having a sand-like filtering material containing calcium therein. In this case, the grain size of the sand-like filtering material is set between 2.5-3.5 mm. **Coral** sand is preferably used as the sand-like material, since it promotes the propagation of aerobic bacteria and converts ammonia and nitric acid to harmless materials and the above grain size exhibits better effect. This method can be performed by a display tank system including a tank for storing the water therein, a bottom filtering sections including the **coral** sand, an external filtering system disposed outside the tank, a feed-out tube for feeding the water in the tank to the external filtering system, and a mechanism for circulating the water which has been filtered by the bottom filtering section through the feed-out tube and the external filtering system into the tank again. The feed-out tube can be provided with a bypass mechanism for feeding the water in the tank to the external filtering system directly without passing the bottom filtering section.

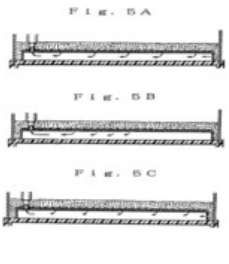


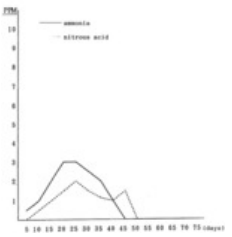


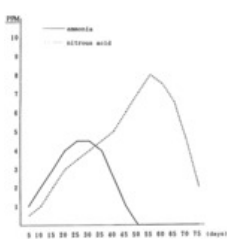


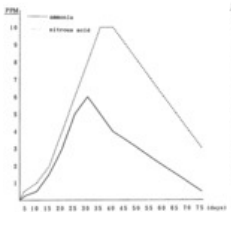


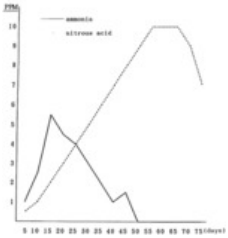






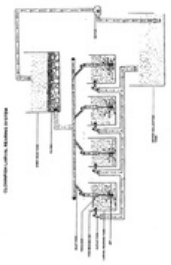


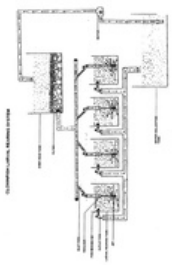


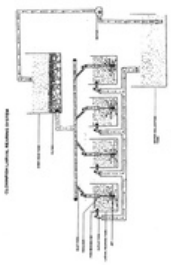


44.	**Hatchery** technology for production of clownfish	IN3455/DEL/2005	2005-12-23	INDIAN COUNCIL OF AGRICULTURAL RESEARCH*	2009-10-02	2009-10-02

The clownfish is one of the most demanded marine tropical fish in the aquarium fish trade. A **hatchery** technology for the clownfish, Amphiprion chrysogaster is developed for the first time in India. The technology includes (1) Broodstock development and (2) Larval rearing techniques. In the broodstock tanks one pair grows ahead of others and becomes the spawning pair.. The size difference of males and females in the broodstock tanks indicates protandry. The spawning takes place during forenoon. The eggs are attached to small earthen pots, granite stones, on the sides of the broodstock tanks and even to the PVC pipes of the biological filter of the tank. The average number of eggs in a single spawning is about 600 and it ranges from 100-1500. Almost 100% hatching is obtained by retaining the eggs in the parental tank itself till hatching. The larval hatching period is between 7 & 8 days. The closed recirculation system developed under the present technology which creates a circular jet of water, is entirely a new innovation in clownfish **hatchery** production. This is a simple but very effective system which avoids contamination of rearing water and enhances the survival rate of larvae by creating the required water currents suitable for the movements of the larvae. The water turbulence created by the jets of water, effectively distributes the rotifers used as live feeds for the larvae. This system makes the clownfish **hatchery** operation less labour intensive by reducing the labour involved in the periodic cleaning and maintenance of water quality of the larval rearing tanks. The larvae are fed with the rotifer Brachionus rotundiformis cultured by outdoor culture method using micro algae. From the fifth day onwards, they are fed with a mixture of B. rotundiformis and freshly hatched Artemia nauplii.. The metamorphosis period ranges from 12-15 days from the day of hatching. The average length of just metamorphosed young one is 8mm. Several batches of clownfishes are reared successfully at the **hatchery** of Vizhinjam Research Centre of Central Marine Fisheries Research Institute. The average survival rate is 50%. The **hatchery** technology can eliminate the exploitation offish from the wild, which leads to destruction of the delicate **coral** reef ecosystem.

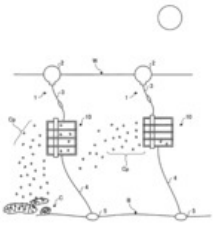


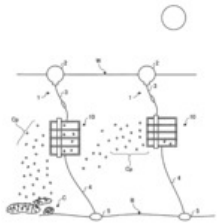
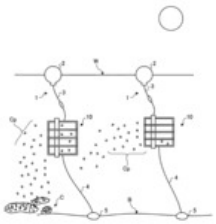
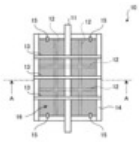
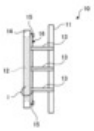
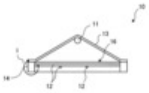
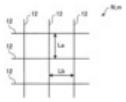
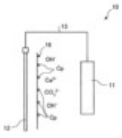
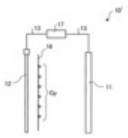
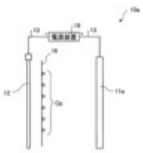
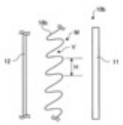




45.	Device for trapping and growing **coral** larva	JP2008022783	2006-07-21	CP FARM* MITSUBISHI HEAVY INDUSTRIES BRIDGE & STEEL STRUCTURES ENGINEERING* NIPPON CORROSION ENGINEERING C* UNIVERSITY OF TOKYO*	2008-02-07	2008-02-07

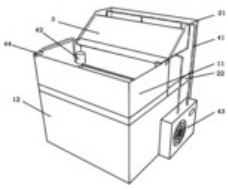
PROBLEM TO BE SOLVED: To provide a device for trapping and growing **coral** larvae, associated with the artificial proliferation of the **coral**, while suppressing damages for **coral** larvae or eggs as minimum, and promoting the taking roots of the trapped **coral** larvae.
SOLUTION: This device 1 for trapping and growing the **coral** larvae is to trap and grow the **coral** larvae or eggs released from the **coral**, and equipped with a trapping tool 10, a bouy 2 and an anchor 5. The trapping tool 10 contains an anode, a cathode, and a sheet arranged in the vicinity of the anode and trapping planula larvae or the eggs. Since the trapping tool 10 and bouy 2 are engaged with a bouy side-mooring cable 3, and the trapping tool 10 and anchor 5 are engaged with an anchor side-mooring cable 4, they are held between the sea bed B and sea surface W and also within a prescribed range in an ocean area.
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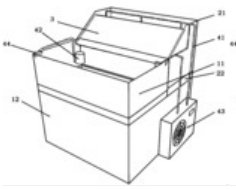
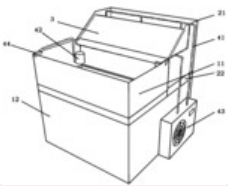


46.	**Coral** sexual propagation system	CN105248343	2015-11-03	COASTAL RESEARCH INSTITUTE OF GUANGXI ZHUANG AUTONOMOUS REGION* THIRD INSTITUTE OF OCEANOGRAPHY SOA*	2016-01-20	2016-01-20

A **coral** sexual propagation system relates to the marine organism artificial **breeding** technology, and is provided with a **coral** incubator, an alga incubator, an alga screen and a pipeline system, wherein the **coral** incubator is provided with a main cylinder body, a bottom cabinet and a main cylinder LED lamp; the alga incubator is provided with a filtering cylinder body and a metal halogen lamp; the pipeline system is provided with a pipe network, a water pump, a temperature control device and a wave making device; the main cylinder body is arranged at the top of the bottom cabinet, the main cylinder LED lamp is arranged above the main cylinder body, a pipeline, a grid plate, a lower silk cover layer, a coarse sand layer, an upper silk cover layer and a **coral** sand layer are arranged at the inner bottom of the bottom cabinet from the bottom up, holes are formed in the pipeline, water in the main cylinder body and the filtering cylinder body enters the alga screen through the pipeline system to realize internal circulation of seawater, and the water pump, the temperature control device and the wave making device are connected through the pipe network and mounted in the main cylinder body; the water pumping end of the water pump is connected with the pipeline at the inner bottom of the bottom cabinet, and the water outflow end of the water pump is connected with the temperature control device and the wave making device. The **coral** sexual propagation system is simple in structure, smart in design and convenient to operate.



47.	Method and system for carbon dioxide fixation by combining shellfish or **coral breeding**	TW201213004	2010-09-20	LAI JUE-GUANG	2012-04-01	2012-04-01

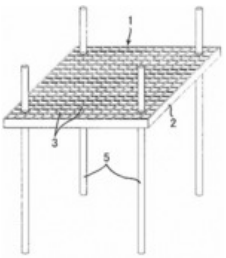
An objective of the invention is to utilize a shellfish or **coral breeding** system in carbon fixation such that carbon dioxide content within exhaust can be absorbed, and carbon dioxide can be performed with semi-permanent carbon fixation. The method of this invention comprises dissolving carbon dioxide within exhaust into water through a spray rinsing manner, culturing alga by utilizing water containing carbon dioxide, and then providing alga to shellfish as food source required for growth or directly providing alga to zooxanthellae of **coral** to facilitate **coral** growth. In this process, carbon element in carbon dioxide is transformed into primary calcium carbonate of shellfish and **coral** skeleton. Since calcium carbonate is not easily decomposed and can be performed with semi-permanent carbon fixation, purposes of **breeding** and environmental protection can be achieved to have high technical thought by utilizing natural principle and extremely have industrial value.

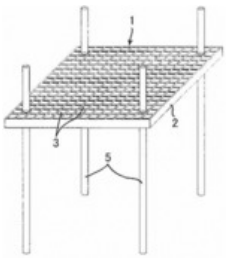
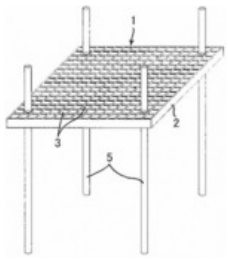
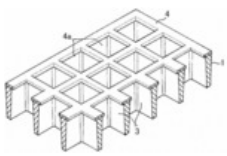
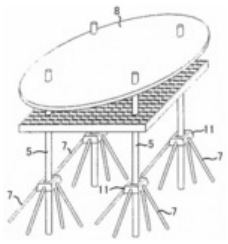
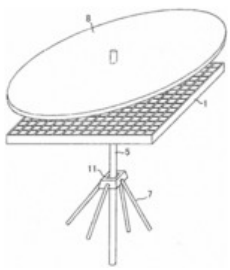
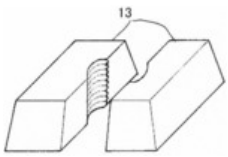
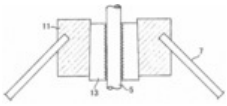
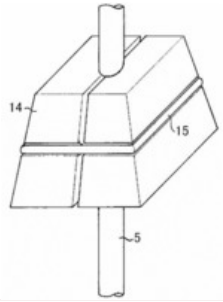
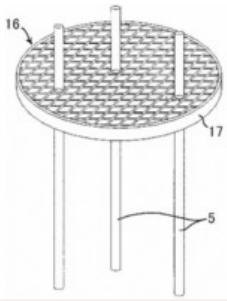
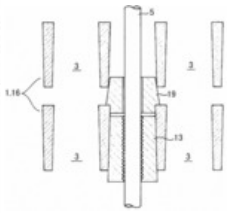
48.	Sarcandra glabra seedling stage disease and insect pest prevention method	CN104025955	2014-06-27	RONGAN COUNTY GOLD BIOTECHNOLOGY SUITABLE FOR AFFORESTATION*	2014-09-10	2014-09-10

The invention discloses a sarcandra glabra seedling stage disease and insect pest prevention method and relates to the technical field of disease and insect pest prevention. The method includes cultivating seedling in a shaded greenhouse, watering during the seedling stage when the surface soil is observed to be in dried and whitish states so as to allow the soil surround the seedling roots to be moist constantly and no water to accumulate on the surface of a seedbed; spraying drug in the initial stages of black leaf mold and anthracnose for eradication. Compared with the prior art, the sarcandra glabra seedling stage disease and insect pest prevention method has the advantages that soil moisture is proper, damping off and bakanae disease are prevented, and seedling disease resistant capability of the seedlings can be improved; disasters are found out in early stages and can be eradicated, and seedling rate and economic efficiency of seedlings can be improved.

49. Structure for **coral** growth | JP2012223128 | 2011-04-19 | DAIKURE* FISHERIES RESEARCH AGENCY* | 2012-11-15 | 2012-11-15

PROBLEM TO BE SOLVED: To provide a structure for **coral** growth that ensures that **coral** larvae implanted on a grid-like structure can be raised without being eaten or dead.SOLUTION: The structure 1 for **coral** growth includes a grid-like structure having the form of a net on a planar view, in which rectangular, open squares 3 are formed horizontally and vertically by combining muntins and cross rails within a rectangular frame 2, both the muntins and the cross rails having the same width as the frame 2. The structure 1 is installed at the bottom of the sea using poles 5 mounted at the four corners of the structure 1, in such a way that the structure is away from the bottom of the sea. The structure resists harmful organisms such as Acanthaster, Echinoidea, shellfish from attaching to it, thereby avoiding these harmful organisms from eating corals or scraping corals off from the grid-like structure, while also avoiding such problems as corals being killed as the structure is covered with sand, seaweed, colonial ascidians, bryozoans, etc.



50. Method for artificial rapid propagation expanding of succulent soft **coral** | CN103583471 | 2013-11-11 | HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* | 2014-02-19 | 2014-02-19

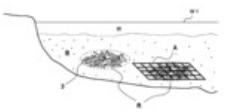
The invention relates to a method for artificial rapid propagation expanding of succulent soft **coral**. According to the method, a 2-3 centimeters wide edge is cut off from the periphery of a round crown of the succulent soft **coral**, then an edge strip is cut into small sections of the **coral**, the **coral** is tied up to a substratum after being soaked through broad-spectrum antibacterial drug solutions to be placed in a **coral** cultivation tank for cultivation, and the light condition is cultivated in the mode that the optical wavelength is 380-450 lambda, and light intensity is 25000-30000k. According to growth characteristics of the succulent soft **coral**, a segmentation propagation expanding and cultivation technology is adopted to carry out artificial rapid propagation expanding, the problem that the soft **coral** is low in propagation expanding speed is solved, propagation efficiency is effectively improved, industrialized production of the succulent soft **coral** is achieved, artificial propagation and cultivation of marine biological resources are promoted, meanwhile marine ecological remediation can be carried out, the corresponding ecological environment is protected, and an efficient path is provided for marine resource development (active drug extraction), ecological environmental protection and other aspects.

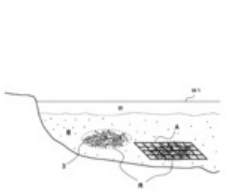
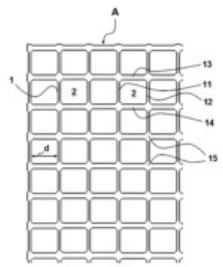
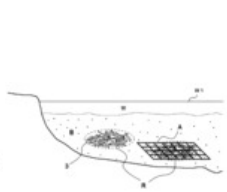




51. **Coral** reef regenerating method | JP2014212702 | 2013-04-22 | KAJIMA* | 2014-11-17 | 2014-11-17

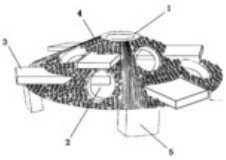
PROBLEM TO BE SOLVED: To provide means that regenerates a **coral** reef simply and effectively by effectively utilizing **coral** fragments generated by an extreme wave such as a typhoon wave and construction in a **coral** reef area, etc.SOLUTION: A method for regenerating a **coral** reef is provided by covering a covering member A formed substantially in a grid or net-like pattern on a **coral** fragment collection group R formed by a large number of **coral** fragments 3, and holding such a condition that **coral** fragments-to-fragments 3 or the **coral** fragments 3 are brought into contact with death **coral** gravels for a long period of time, and thereby regenerating the **coral** reef.

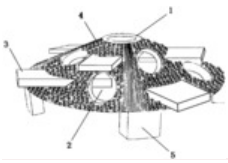
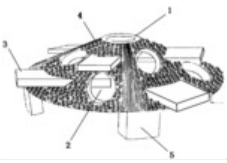


52. Artificial ecological **coral** reef and construction method for same | CN105454101 | 2015-07-09 | GUANGDONG OCEAN UNIVERSITY* | 2016-04-06 | 2016-04-06

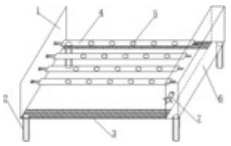
An artificial ecological **coral** reef is a hollow naked reef. The hollow naked reef is provided with a table-like housing; a plurality of supporting columns are fixedly connected to the bottom of the table-like housing; a plurality of communication holes with various sides are formed in the wall surface of the hollow naked reef; a plurality of embedded plate passing through the wall surface of the hollow naked reef are fixed on the wall surface of the hollow naked reef; the embedded plates extend certain length out of the interior of the hollow naked reef; and surface attached layers are fixed on the internal and external wall surfaces of the hollow naked reef. By the use of the artificial ecological **coral** reef, **coral** young bodies can easily attach and grow and **coral** transplantation can be facilitated; **coral** reef organism inhabiting, sheltering and growth and **breeding** can be facilitated, so an independent and comprehensive **coral** reef ecological chain with stability can be formed; and the artificial ecological **coral** reef can work as an independent reef and group reefs.

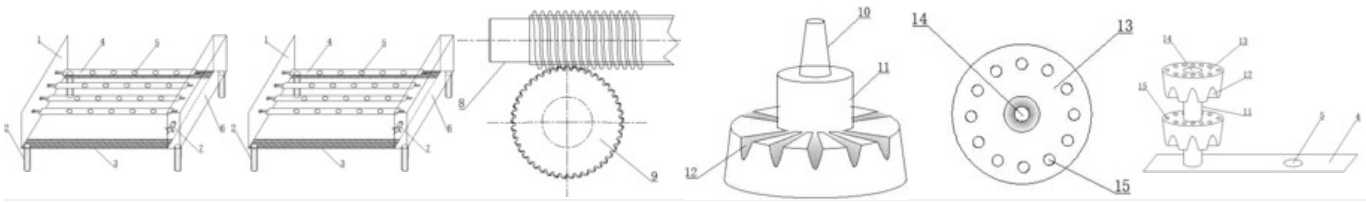



53. Prosthetic devices is transplanted to **coral** reef suitable for nanhai sea — CN206453004 — 2017-01-13 — CHANGSHA UNIVERSITY OF SCIENCE & TECHNOLOGY* — 2017-09-01 — 2017-09-01

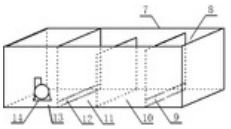
The utility model provides a prosthetic devices is transplanted to **coral** reef suitable for nanhai sea, including limit wall, footing, rigid support, bottom plate, control box, cross knob, worm, helical gear, **coral breeding** device. After adopting above -mentioned technical scheme, the **coral** is during the egg -laying season, and the **coral** larva set that prosthetic devices will attract the drift is transplanted to the **coral** reef that is fixed in the outer slope of reef front, treats the **coral** and reaches maturity, will insert with the **coral breeding** device of **coral** after punchinging on the degeneration **coral** reef and be fixed, accomplishes **coral** reef ecological remediation. The problem of traditional **coral** reef transplant prosthetic devices's **coral** transplanting success low, under water the **coral** transplant and fixed difficulty, **coral** larva are easy is preyed on and by the deposit cover etc is solved, improve the **coral** reef and transplanted remediation efficiency and quality.

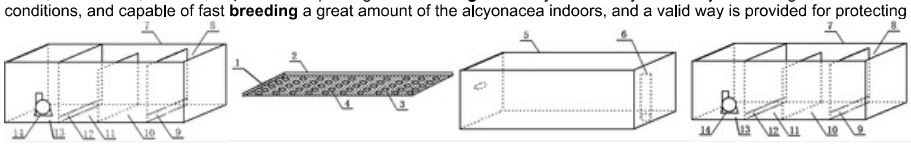




54. Artificial propagation expanding device of alcyonacea — CN103385217 — 2013-05-18 — HAINAN ACADEMY OF OCEAN & FISHERIES SCIENCES* — 2013-11-13 — 2013-11-13

The invention relates to an artificial propagation expanding device of alcyonacea, comprising an propagation expanding vat, a water treatment vat and a lighting rack; the propagation expanding vat is provided with a water inlet and a water outlet, a positioning pipe is vertically arranged on the water outlet, and a convection pump is arranged in the propagation expanding vat; the interior of the water treatment vat is divided into a filter chamber, a protein skimmer defoaming chamber, a microorganism chamber and a water drawing chamber by partition plates, wherein the filter chamber is filled with a filter material, the protein skimmer defoaming chamber is internally provided with a protein defoaming device, microorganisms are bred in the microorganism chamber, and the water drawing chamber is provided with a water suction pump; the lighting rack comprises a frame, radiating fins, LED (light-emitting diode) lamp beads, a constant-current source and a control circuit. The device is simple in structure, convenient to install, low in cost, durable, capable of improving the **breeding** efficiency of the alcyonacea by simulating natural environment without being easily limited by external conditions, and capable of fast **breeding** a great amount of the alcyonacea indoors, and a valid way is provided for protecting and manually repairing **coral**.



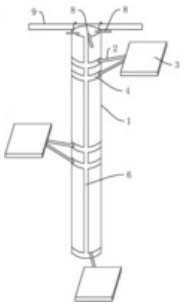


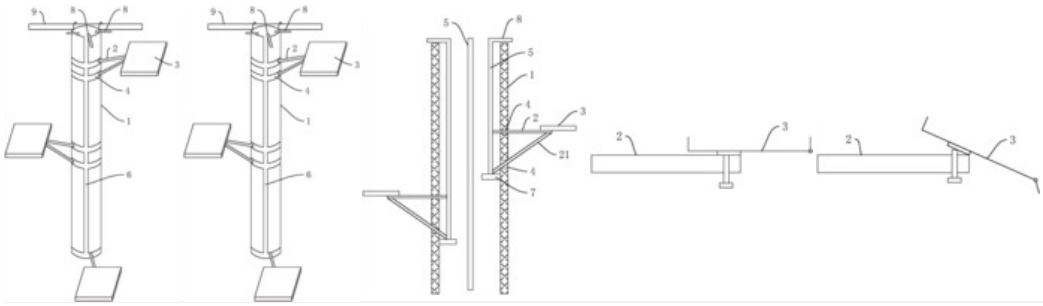
55. Artificial cultivation method of **coral** segmentation propagation — CN106719111 — 2016-12-13 — FUJIAN NORMAL UNIVERSITY* — 2017-05-31 — 2017-05-31

The invention relates to an artificial cultivation method of **coral** segmentation propagation. The method comprises the following steps: 1) binding a small section of cut **coral** body on a substratum to perform stage artificial cultivation; 2) respectively feeding the first stage compound liquid bait at the seventh, the 14th and the 21st day; 3) feeding the second stage compound liquid bait at the 24th, the 28th, the 31st, and the 35th day; 4) feeding the third stage compound liquid bait and the living bait rotifer at the 51st, the 55th, the 59th, the 63rd, the 67th and the 70th; and 5) feeding the fourth stage compound liquid bait and the living bait rotifer at the 74th, the 78th, the 82th, the 86th, the 90th, the 94th, the 98th, the 102nd, the 106th, and the 110th day. The **coral** segmentation is propagated in segmentation by use of the method disclosed by the invention, the nutritional balance is good, the survival rate is 100%, the average net wet weight is increased by 184.12g after being cultivated for 100 days, and the method is the artificial cultivation method suitable for **coral** asexual propagation segmentation proliferation in the Shui nationality.

56. Apparatus for artificial indoor cultivation of **coral** — CN107372210 — 2017-08-03 — CHINESE ACADEMY OF FISHERY SCIENCES* — 2017-11-24 — 2017-11-24

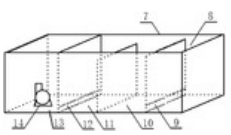
The invention discloses an apparatus for artificial indoor cultivation of **coral**. The apparatus comprises an installation column provided with at least two layers of cultivation components; the cultivation components are arranged at different heights of the installation column. Each layer of cultivation component comprises a support connected to the installation column and a **coral** frame connected to the outer end of the support; the **coral** frames of different layers are staggered one another along the vertical direction. The **coral** frames are arranged on the installation column which is in vertical arrangement, the installation column is arranged in a **coral** box, and thus, **coral** can be cultured along the vertical direction of the **coral** box and internal space of the **coral** box can be utilized reasonably. Besides, the **coral** frames are staggered one another along the vertical direction so that **coral** in the **coral** frame at each layer can be lighted sufficiently and reasonably.

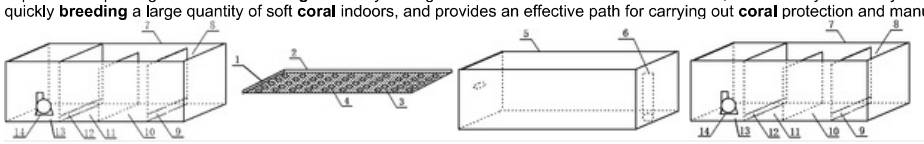




57. Soft **coral** artificial expanding propagation device — CN203279663 — 2013-05-18 — HAINAN PROVINCIAL FISHERIES RESEARCH INSTITUTE* — 2013-11-13 — 2013-11-13

The utility model relates to a soft **coral** artificial expanding propagation device. The soft **coral** artificial expanding propagation device comprises an expanding propagation cylinder, a water treatment cylinder and a lighting stand. The expanding propagation cylinder is provided with a water inlet and a water outlet. A locating pipe is vertically arranged on the water outlet, and a convection pump is arranged inside the expanding propagation cylinder. The inner portion of the water treatment cylinder is divided into a filtering chamber, an egg separating and foam removing chamber, a microorganism chamber and a water pumping chamber through partition plates, wherein filtering materials are filled into the filtering chamber, an egg white foam removing device is arranged inside the egg separating and foam removing chamber, microorganisms breed in the microorganism chamber, and a water pump is arranged inside the pumping chamber. The lighting stand is composed of a framework, radiating fins, LED lamp beads, constant source currents and a control circuit. The soft **coral** artificial expanding propagation device is simple in structure, convenient to install, low in cost, durable and capable of improving soft **coral breeding** efficiency through simulation of the natural environment, is not easily limited by outside conditions, can achieve the purpose of quickly **breeding** a large quantity of soft **coral** indoors, and provides an effective path for carrying out **coral** protection and manual repair.





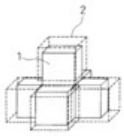
58.	Method for making **coral** reef	JP2007135511	2005-11-21	KAJIMA*	2007-06-07	2007-06-07

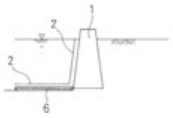
PROBLEM TO BE SOLVED: To provide a method for making a **coral** reef, by which the improvement of an adhesion environment to positively invite **coral** larvae and remake the **coral** reef without needing a means such as the transplantation or importation of corals, the prevention of glazing by fishes and the like after the adhesion of the **coral**, and the formation of the **coral** reef in a small **coral** larva content sea area such as an exhausted **coral** reef without a large installation are possible.
SOLUTION: A net-like structure 2 is laid on at least one portion of an adhesion substrate 1 in water to adhere **coral** larvae living in a natural world to the adhesion substrate 1 on which the net-like structure 2 is laid. The net-like structure 2 is preferably removed after laid for a constant period. The net-like structure 2 is preferably formed from a material which is naturally degraded after the passage of a constant period.
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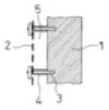


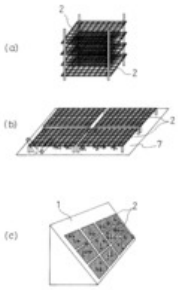












59.	**Coral** extract for skin whitening, moisture retention, elasticity improvement, anti-inflammation and occlusion of wounds and extracting method thereof	US20140294745	2013-04-01	NATIONAL MUSEUM OF MARINE BIOLOGY & AQUARIUM* NATIONAL SUN YAT SEN UNIVERSITY KAOHSIUNG* NATIONAL SUN YAT-SEN UNIVERSITY UNI PRESIDENT BIOTECH*	2014-10-02	2014-10-02

A **coral** extract for skin whitening, moisture retention, elasticity improvement, anti-inflammation and occlusion of wounds and its extracting method is provided. The **coral** extract is extracted from Briareum excavatum. The extracting method comprises: extracting with organic solvents, partitioning with water and ethyl acetate and separating via column chromatography. The **coral** extract can be applied in the field of skin whitening, moisture retention, elasticity improvement, anti-inflammation and occlusion of wounds.



FIG . 1



FIG . 1

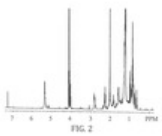


FIG . 2

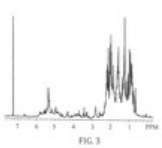


FIG . 3

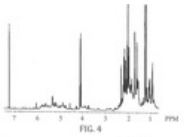


FIG . 4

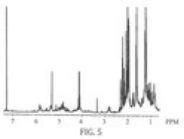


FIG . 5

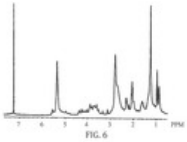


FIG . 6

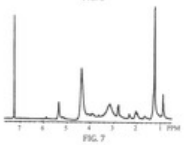


FIG . 7

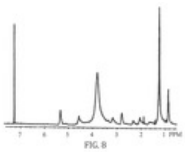


FIG . 8

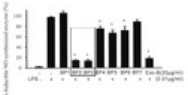


FIG . 9

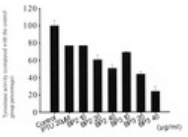


FIG . 10

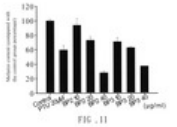


FIG . 11

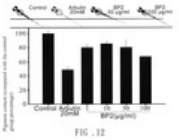


FIG . 12

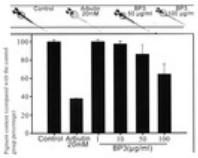


FIG . 13

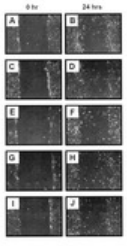


FIG . 14

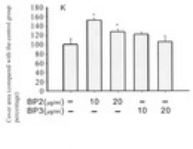


FIG . 14(Con.)

60. Soft **coral** creating method using natural bedrock KR101334909 2013-05-30 KOREA FISHERIES RESOURCES AGENCY* 2013-11-29 2013-11-29

The present invention relates to a method for creating soft **coral** using a natural bedrock, more specifically, to a method for creating soft **coral** using a natural bedrock, which provides a habitation space and a spawning ground for fishes to cope with climate warming, preserves **coral**, develops resources using the **coral**, promotes underwater sightseeing through the creation of **coral** field. [Reference numerals] (S10) Step where a **coral** seed to be planted on natural bedrocks is produced based on a **coral** mature cutting method;(S20) Step where the **coral** seed is attached to and cultivated on a ground substance for natural bedrocks;(S30) Step where the **coral** seed attached to the ground substance is transferred and planted on underwater bedrocks;(S40) Step where the **coral** seed underwater planted is monitored







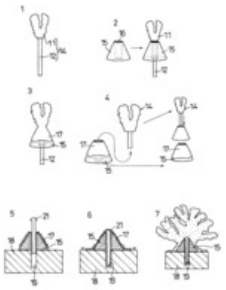
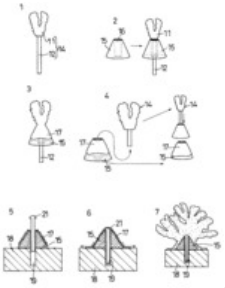


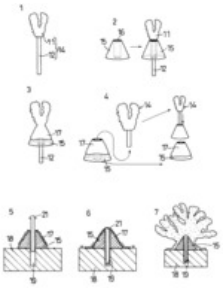




61. Method for proliferation of **coral** and capsule base used for the method JP2006034243 2004-07-29 CP FARM* 2006-02-09 2006-02-09

PROBLEM TO BE SOLVED: To provide a method for effectively culturing **coral** by utilizing two dimensional capsule type growth of sedentary **coral**.
SOLUTION: The invention relates to the method for proliferation of reef-building **coral** by taking root on a substrate comprising anchoring a daughter strain of the **coral** on a supporting axis, providing a base for coat having inclined face on the periphery, attaching the daughter strain with supporting axis on the base for coat, **breeding** and growing the daughter strain in a state in contact with the base for coat and set the **coral** to grow by three dimensionally piling up the skeleton of daughter strain on the upper part and two dimensionally covering base for coat at the root part.
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62. Soft **coral** creating method using artificial structure KR101334910 2013-05-30 KOREA FISHERIES RESOURCES AGENCY* 2013-11-29 2013-11-29

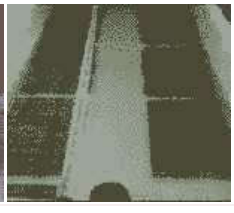
The present invention relates to a method for creating soft **coral** using an artificial structure, more specifically, to a method for creating soft **coral** using an artificial structure, which provides a habitation space and a spawning ground for fishes to cope with climate warming, preserves **coral**, develops resources using the **coral**, promotes underwater sightseeing through the creation of **coral** field. [Reference numerals] (S10) Step for producing **coral** seeds for transplanting an artificial structure;(S20) Step of attaching the **coral** seeds to a panel for transplanting an artificial structure and cultivating the **coral** seeds;(S30) Step of transferring the **coral** seeds attached to the panel and transplanting the **coral** seeds underwater;(S40) Step of monitoring the **coral** seeds which are completely transplanted underwater









63. Liquid food for feeding **coral** polyp — CN105707518 — 2016-03-08 — PORPOISE AQUARIUM* — 2016-06-29 — 2016-06-29

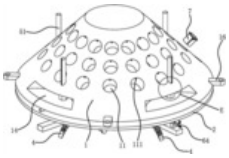
The invention provides liquid food for feeding **coral** polyp. The liquid food is prepared from, by mass, 1 part of import white fish meal, 0.8 part of euphausia superba meal, 0.6 part of bean pulp, 0.8 part of complex amino acid, 0.12 part of decavitamin, 0.07 part of mineral substance, 0.2 part of spiral seaweed, 0.4 part of lecithin, 0.4 part of fish oil, 0.05 part of xanthan gum, 0.07 part of potassium sorbate, 0.02 part of calcium propionate and 88 parts of distilled water, wherein mineral substance is compound mineral substance, and all the raw materials are raw materials frequently used in the field and can be purchased on the market. The liquid food can enhance the immunity and the nutrient absorption capacity of **coral** polyp; by the superfine smashing technology and by combining with xanthan gum, the liquid food is in a suspension state in a seawater aquarium, can be conveniently put in and easily digested and absorbed, and comprehensively provides nutrients for **coral** polyp, the high-quality **breeding** of **coral** polyp is achieved, and meanwhile the ornamental water body can not be polluted.

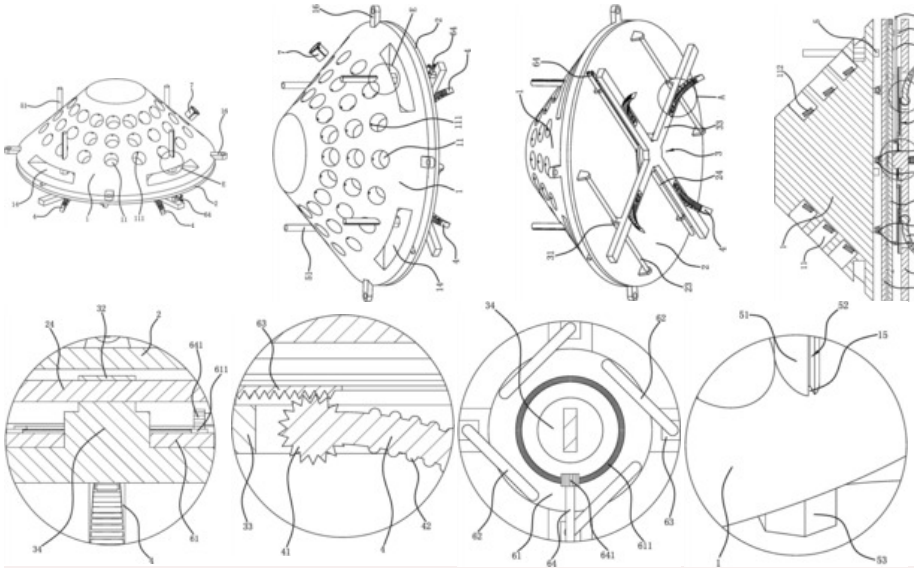
64. Method for increasing body colors of artificially-bred anemone fish of **coral** reef fish — CN102613113 — 2012-03-09 — HAINAN UNIVERSITY* — 2012-08-01 — 2012-08-01

The invention belongs to the field of aquaculture, and relates to a method for increasing the body colors of artificially-bred anemone fish of **coral** reef fish. The method comprises the following steps of: washing fresh water fleas caught in the field, and freezing at the temperature of less than 0 DEG C; when juvenile fish of the anemone fish grow to 2 to 3 centimeters, feeding artificial pellet feeds in an amount which is 60 to 70 percent of the feed intake of the juvenile fish, and adding the frozen fresh water fleas in an amount which is 30 to 40 percent of the feed intake of the juvenile fish; and feeding continuously for 5 to 7 days until the anemone fish are reddened obviously, and siphoning the residual fresh water fleas sunk to the cylinder bottom every evening in the feeding process. According to the method, artificial fish baits and natural fish baits are fed designedly, so that the body colors of the anemone fish can be improved effectively; and the bred anemone fish are gorgeous in body colors, complete in patterns and robust in bodies, reach the gorgeous degree of the body colors of wild anemone fish and have high ornamental and economic value.

65. Sea floor **coral** culture base — CN107079840 — 2017-06-14 — LIU XIAOBING — 2017-08-22 — 2017-08-22

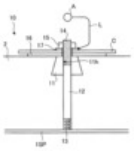
The invention provides a sea floor **coral** culture base and belongs to the technical field of marine **breeding** equipment. The problem is solved that an existing **coral** cultivation is prone to damage. The sea floor **coral** culture base comprises a base body in a circular truncated cone shape, a plurality of positioning holes are formed in the conical surface of the base body, the lower end face of the base body is connected with an adjusting plate in a sliding mode, the lower side face of the adjusting plate is connected with a positioning frame in a sliding mode, a plurality of positioning jaws are hinged to the positioning frame provided with a control mechanism capable of driving the positioning jaws to swing synchronously, and a supporting rod is further arranged on the base body. According to the sea floor **coral** culture base, corals can be centrally cultured, and fixing for culture bases is more convenient and labor-saving.

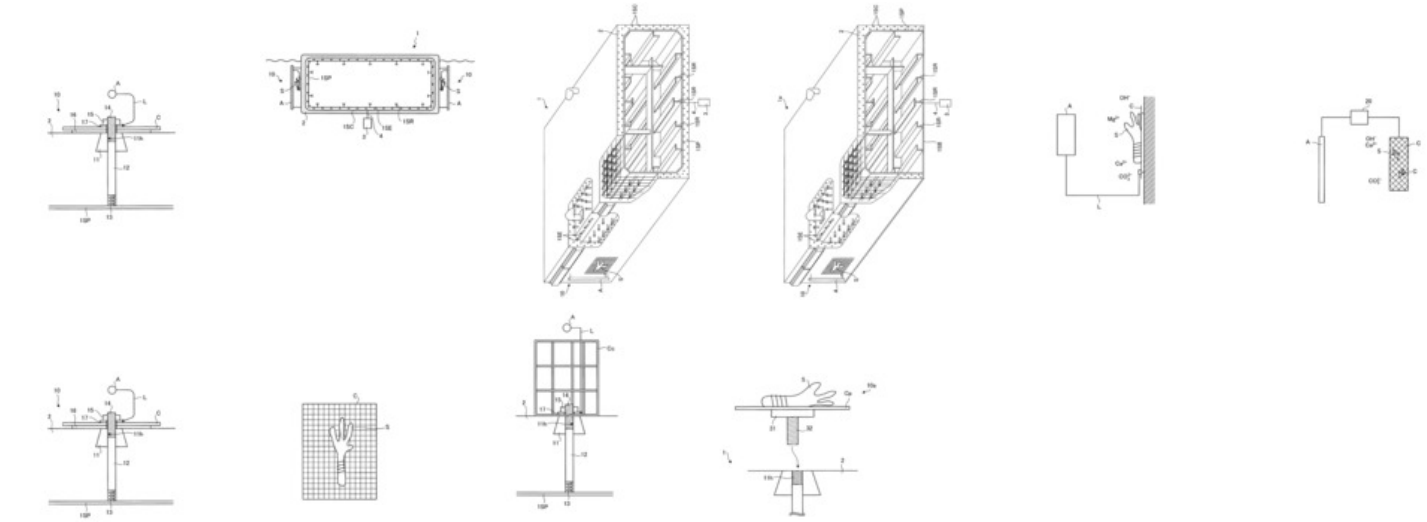




66. Structure for rearing **coral** — JP2008043284 — 2006-08-18 — CP FARM*
MITSUBISHI HEAVY INDUSTRIES BRIDGE & STEEL STRUCTURES ENGINEERING*
NIPPON CORROSION ENGINEERING C*
UNIVERSITY OF TOKYO* — 2008-02-28 — 2008-02-28

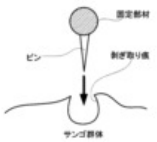
PROBLEM TO BE SOLVED: To provide a structure for rearing **coral**, promoting growth of **coral**.
SOLUTION: The structure for rearing **coral** is obtained by placing concrete 2 on the outside of a metallic frame body 1SP and attaching **coral** to be cultured to the outside of a part sunk in the sea by a **coral**-supporting structure 10. The **coral**-supporting structure 10 has a cathode C functionalizing as a fixing tool for fixing the **coral** and an anode A arranged in sea water and electrically connected to the cathode C by a conductor L and having a natural potential which is poorer than that of the cathode C. The cathode C to which **coral** is fixed is attached through a resin screw 14 to a **coral**-fixing tool-attaching body 11 embedded in the concrete 2. Conduction of the cathode C to the frame body 1SP is suppressed between the cathode C and the frame body 1SP by the resin screw 14.
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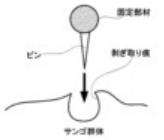
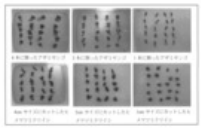
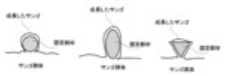
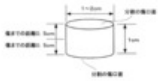
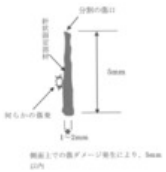
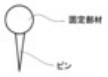
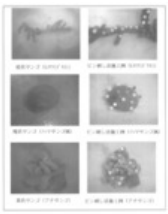


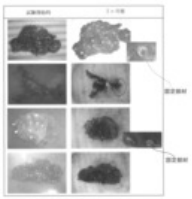
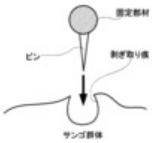


67. Method for propagating **coral** JP2008141989 2006-12-07 OKIDEN SEKKEI* 2008-06-26 2008-06-26

PROBLEM TO BE SOLVED: To provide a method for propagating **coral** that can surely reduce damages given to donor **coral**.
SOLUTION: The method for propagating the **coral** comprises a first step of arranging at least one fixing member on a live **coral** colony, a second step of growing a part of the **coral** colony, covering at least a part of the fixing member and then removing the fixing member together with the grown **coral** colony, and a third step of moving the part of the removed **coral** colony, together with the fixing member to another place and making the part of the **coral** colony grow. The maximum outside diameter of the fixing member is substantially the same as that of the nubbin size which is specific to the species of the objective **coral** colony.
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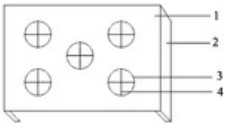



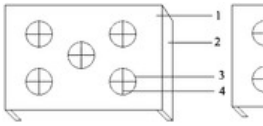
68. **Coral** reef ecosystem restoration method through siganus guttatus CN104255602 2014-09-24 JIMEI UNIVERSITY* THIRD INSTITUTE OF OCEANOGRAPHY SOA* 2015-01-07 2015-01-07

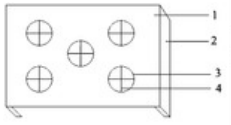
The invention discloses a **coral** reef ecosystem restoration method through siganus guttatus. The method is characterized by putting siganus guttatus into the water of a sea area needing **coral** reef ecosystem restoration. The **coral** reef ecosystem restoration method through siganus guttatus uses siganus guttatus for **coral** reef ecosystem restoration. The siganus guttatus can be used for ingesting algae in the **coral** reef habitat for further reducing the number and density of competitors of **coral** so as to achieve the purpose of rapid and efficient facilitating of **coral** reef ecosystem purification.

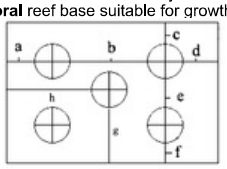
69. Table-shaped **coral** reef base suitable for growth of **coral** CN203087269 2013-01-24 SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* 2013-07-31 2013-07-31

The utility model discloses a table-shaped body **coral** reef base suitable for growth of **coral**. The table-shaped body **coral** reef base is formed by freely combining and fixing a plurality of table-shaped single bodies. Each table-shaped single body comprises an attachment surface, and a plurality of supports and a supporting surface for fixing the attachment surface are arranged below the attachment surface. A plurality of round holes are arranged in the attachment surface, and support frames are arranged in the round holes. The table-shaped body **coral** reef base suitable for growth of the **coral** not only can be used as a growing place after the **coral** is transplanted and play a role of fixing, but also can provide habitat for other living things like zooplankter in the ecosystem. The table-shaped body **coral** reef base is taken as an attaching matrix surface layer of plants like alga so that a surface for the living things to grow in the whole ecosystem is enlarged, and therefore the table-shaped **coral** reef base is of high ecological significance. Currents and waves can smoothly pass through the lower portions of the table-shaped bodies so as to relieve impact on the reef base by broken waves and the like, and therefore stability is further enhanced. The table-shaped bodies can be freely combined to be different configurations and can be placed in both shoal water areas and deep water areas, and therefore the table-shaped body **coral** reef base suitable for growth of the **coral** is wide in application.



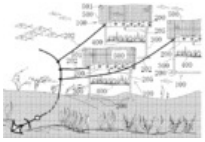


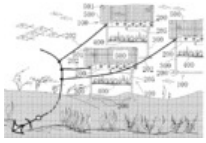
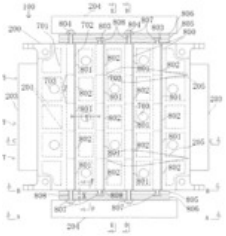
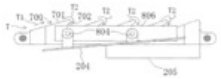
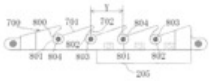
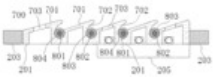
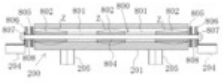
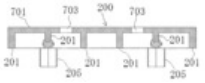


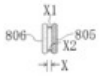


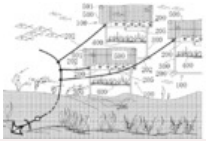
70. Artificial **coral**-implanting reef JP2008154471 2006-12-21 DAIKURE* 2008-07-10 2008-07-10

PROBLEM TO BE SOLVED: To provide an artificial **coral**-implanting reef capable of artificially implanting a plurality of **coral** fertilized eggs in the sea, before making them set on the sea bottom at an early stage, to increase the **coral** implantation ratio and to improve the life-support environments for corals.
SOLUTION: The artificial **coral**-implanting reef is obtained following the steps, wherein the artificial **coral**-implanting reef changes a tidal current into a countercurrent flow; in the body base part thereof, a plurality of mushroom shaped or wave shaped flow-changing protrusions for rolling in or changing the flow of the tidal current into a descending flow are installed and segments exposing the surface for implanting the **coral** are provided in the rolling in and flow-changing parts from the plurality of flow-changing protrusions; a baked porous ceramic body, a baked magnetized porous ceramic body containing ferrite or a baked porous ceramic body containing vermiculite is arranged as the **coral**-implanting segments; and furthermore, the vermiculite and/or achroite (tourmaline) or the like., are mixed with a base material that constitutes the body base part.
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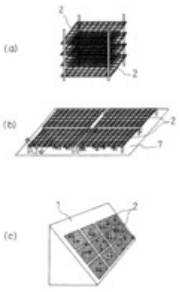








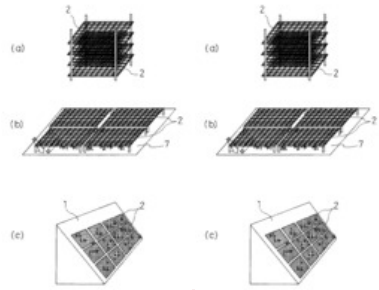




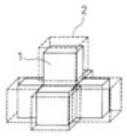

71. Method for making **coral** reef | JP2011125347 | 2011-02-22 | KAJIMA* | 2011-06-30 | 2011-06-30

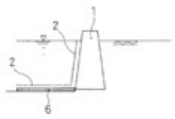
PROBLEM TO BE SOLVED: To provide a method for making a **coral** reef, by which the adhesion environment is improved to positively invite **coral** larvae so that remake of the **coral** reef is contemplated without using a means such as the transplantation or importation of corals, the glazing by fishes and the like can be prevented after the adhesion, and, even in the sea area low in **coral** larva recruitment amount such as exhausted **coral** reef, the **coral** reef can be formed without a large installation.
SOLUTION: **Coral** larvae are adhered on the rear side of a net-like structure 2, and the net-like structure 2 is reversed and set on at least a part of an adhesion substrate 1 in water.
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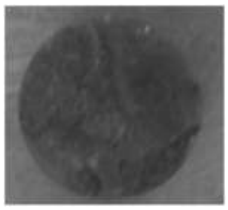


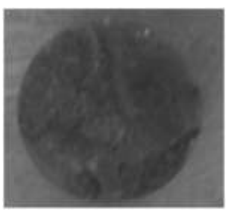


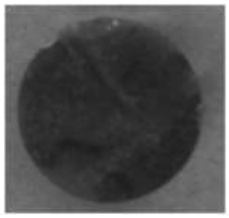


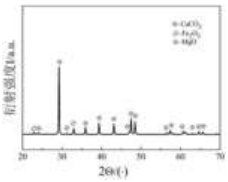
72. Artificially synthesized red **coral** and its preparation method | CN104370306 | 2014-09-28 | UNIVERSITY YANSHAN* | 2015-02-25 | 2015-02-25

The chemical molecular formula of an artificially synthesized red **coral** is xCaCO3.yFe2O3.(1-x-y)MgO, x and y are mass percentages (wt.%), x is not smaller than 85% and not greater than 90%, and y is not smaller than 3% and not greater than 8%. A preparation method of the artificially synthesized red **coral** comprises the following steps: blending superfine calcium oxide powder with graphite powder according to a molar ratio of 1:1, adding iron oxide and magnesium oxide, putting the obtained mixed powder into a ball milling tank, adding billing balls according to a ball/material ratio of 20-25:1, carrying out ball milling for 30min, carrying out compression molding, and carrying out temperature and pressure maintenance by using a cubic press under 2GPa at 500-600DEG C for 60min to synthesize the red **coral** block material. The preparation method has the advantages of simple preparation process and short production period; and the red **coral** material prepared in the invention has rich gorgeous color and fine texture, and is suitable for being carved and processed to form red **coral** ornaments and accessories.



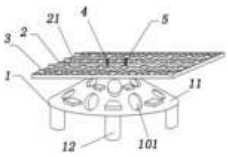


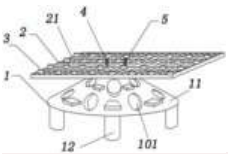


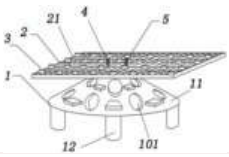


73. Nature sea area scleractinian **coral** cultivation planting device | CN205623909 | 2016-05-03 | GUANGDONG OCEAN UNIVERSITY*
GUANGDONG OCEAN UNIVERSITY
SHENZHEN RESEARCH INSTITUTE*
SHENZHEN CITY BIHAI BLUE SKY MARINE TECHNOLOGY* | 2016-10-12 | 2016-10-12

The utility model relates to a nature sea area scleractinian **coral** cultivation planting device, including built on stilts reef, **coral** net garden and the **coral** fixer of supporting, wherein make somebody a mere figurehead the top and the luxuriant fixed connection of **coral** net of supporting the reef, flat penetrating grid structure is adopted in **coral** net garden, and in the net hole of **coral** fixer embedding grid structure, the **coral** fixer is netted the garden with the **coral** and is connected.

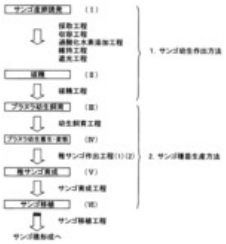


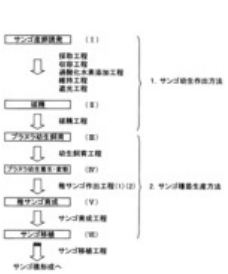


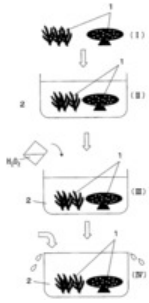


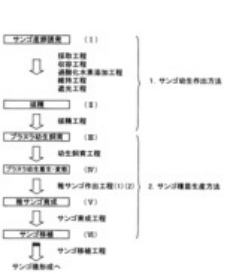
74. Method for culturing **coral** | JP2008125440 | 2006-11-21 | ESTABLISHMENT OF TROPICAL MARI* NPO ENVIRONMENTAL TECHNOLOGY C* | 2008-06-05 | 2008-06-05

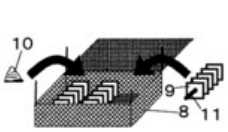
PROBLEM TO BE SOLVED: To provide a series of methods for culturing **coral**, using a method for preparing **coral** larvae, and to provide a method for producing **coral** seedlings.
SOLUTION: This series of methods for culturing the **coral** is provided by combining the method for preparing the **coral** larvae, which comprises a process of collecting **coral** colonies from the sea, a process of housing the collected **coral** colonies in an aquarium, a process of adding hydrogen peroxide (H₂O₂), as necessary, to an aquarium that houses the **coral** colonies, a maintaining process of maintaining the **coral** colonies under water flow after the hydrogen peroxide-addition process, and a light-shielding process for adjusting oviposition time by shielding the light after performing the maintaining process for an optional period of time; with the method for producing the **coral** seedlings by culturing for rooting the produced planula larvae and by mix-culturing them with algae-eating marine snails to improve their survival rate, after their metamorphosis into polyps (young corals).
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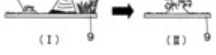


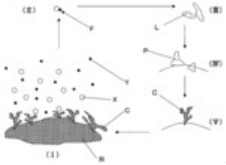


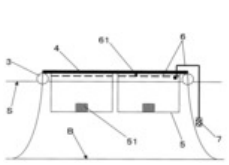


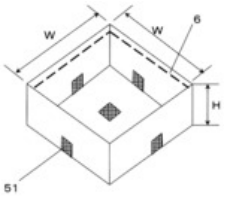


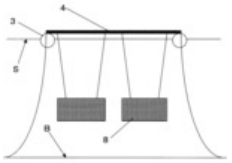










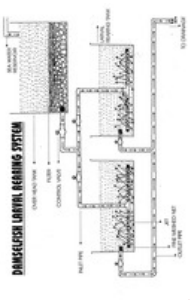


75. **Hatchery** technology for production of damselfish | IN1638/DEL/2004 | 2004-08-31 | INDIAN COUNCIL OF AGRICULTURAL RESEARCH* | 2006-08-18 | 2006-08-18

Damselfish constitutes one of the most demanded tropical marine fish in the aquarium fish trade. A **hatchery** technology for five species of damselfishes viz., the regal damsel Neopomacentrus cyanomos, the yellow tailed damsel Neopomacentrus nemurus, the blue damsel Pomacentrus caeruleus, the peacock damsel Pomacentrus pavo and the one spot damsel Chrysiptera unimaculata is developed for the first time in India. The mating system is promiscuous in which both males and females spawn with several mates. The egg laying is mainly during early morning hours, rarely extending upto noon. All the species exhibit continuous spawning without any seasonality. The eggs are allowed to hatch in the broodstock tank. The duration of incubation ranges from 90-120 hours. The length of just metamorphosed young ones of the different species ranges from 15-20mm. The **hatchery** technology can eliminate exploitation of the fishes from the wild, which leads to destruction of delicate **coral** reef ecosystem.





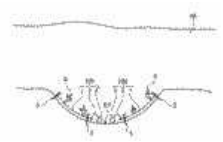


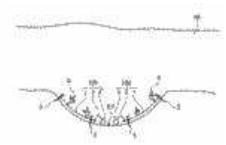
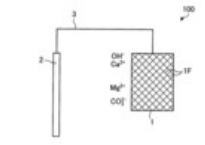
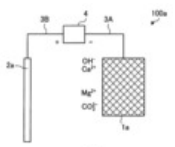
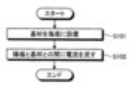
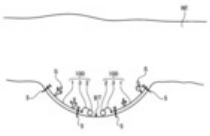
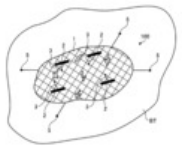
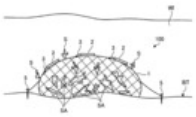
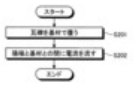
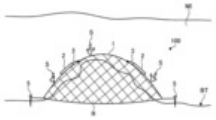
76. Preparation and feeding method of sustained-release pellet feed for artificial **breeding** of corals | CN106578717 | 2016-12-13 | FUJIAN NORMAL UNIVERSITY* | 2017-04-26 | 2017-04-26

The invention relates to a preparation and feeding method of sustained-release pellet feed for the artificial **breeding** of corals. The method is characterized by comprising the following steps: (1) weighing mysid, mussel gonad, ulva and kelp, adding an appropriate amount of seawater, wet grinding into thick pulp, adding raw materials such as calcium oxide, fish oil, nannochloris oculata powder, yeast powder, rhodospira rubrum powder, vitamins, MgSO4, carboxymethylcellulose, and yam powder, adding an appropriate amount of seawater, uniformly mixing to obtain a wet-clustered mixture, extruding and granulating the wet-clustered mixture by using a granulating machine, air drying or drying with hot air to obtain the sustained-release pellet feed for the artificial **breeding** of the corals; and (2) loading the sustained-release pellet feed in a mesh bag, immersing the mesh bag containing the pellet feed in water, and fixing at a position of 150 to 200 mm above the **coral** spikelet. The sustained release rate of the sustained-release feed is regulated to be roughly the same with a predation rate of the **coral**, so that the utilization rate of the feed is increased, the cost of the feed is reduced, and the eutrophication of the water quality in the **coral** cultivating water tank environment is reduced.

77. **Coral** growing method — JP2012075420 — 2010-10-05 — CP FARM*; MITSUBISHI HEAVY INDUSTRIES BRIDGE & STEEL STRUCTURES ENGINEERING*; NIPPON CORROSION ENGINEERING*; UNIVERSITY OF TOKYO* — 2012-04-19 — 2012-04-19

PROBLEM TO BE SOLVED: To provide a **coral** growing method capable of recovering **coral** reef.SOLUTION: A **coral** growing apparatus 100 comprises a base material 1, a positive electrode 2 and a wire 3 which connects both electrically. The base material 1 is a network structure made of a metal, and acts as a cathode in the sea WI. The anode 2 is composed of a metal less noble in standard electrode potential than the base material 1, and acts as an anode in the sea WI. The base material 1 and the anode 2 are connected by the wire 3 after setting the base material 1 on the seabed BT, and electric current is made to flow in the sea WI between the base material 1 and the anode 2.



78. Tridacna larvae artificial **breeding** method capable of improving survival rate during proliferation and releasing — CN107897068 — 2017-10-31 — SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* — 2018-04-13 — 2018-04-13

The invention discloses a tridacna larvae artificial **breeding** method capable of improving the survival rate during proliferation and releasing. The method includes the steps of: performing selection and treatment on tridacna larvae for artificial **breeding**, and transporting the treated tridacna larvae to a sea area for proliferation and releasing; taking the tridacna larvae out of a flowing water bin, performing semi-buried treatment on the taken tridacna larvae in a calcium carbonate-material releasing base, then putting the releasing base with the buried tridacna larvae in a mesh cage rack with a lid, fixing the mesh cage rack on the bottom of the sea, and keeping the distance between the mesh cage rack and the slack tide water level at 3-15 meters and the distance between the mesh cage rack and the bottom surface of a seabed base at 30 cm or above; when the length of shells of the tridacna larvae grows to 6 cm or above, removing the tridacna and mesh cage rack, putting the removed tridacna and mesh cage rack in a **coral** reef area which has smooth water flow, light intensity of 6,000-12,000 LX and flat parts for growth, cleaning covering matter in time in a typhoon season, performing recovery and fixation on rollover tridacna bases, and eliminating harmful organisms. Through the tridacna larvae artificial **breeding** method capable of improving the survival rate during proliferation and releasing, the survival rate of the tridacna larvae can be improved effectively, and technical support can be provided for proliferation of the tridacna resource and ecological restoration of **coral** reefs in China.





79. Feeding device for storage pond for **coral** — CN104798714 — 2015-04-10 — CHINESE ACADEMY OF FISHERY SCIENCES* — 2015-07-29 — 2015-07-29

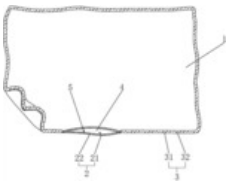
The invention discloses a feeding device for a storage pond for **coral**. The feeding device comprises a gauze, a fixing rack for fixing the shape of the gauze is arranged outside the gauze, the gauze is opened towards the downside, and a connector is opened in the upper end of the gauze; the connector is connected with a guide pipe, and the other end of the guide pipe is connected with a funnel for facilitating feeding; a hoisting knot is arranged at the upper end of the fixing rack for hoisting the feeding device. According to the feeding device for the storage pond for the **coral**, plankton bait can be fed from the funnel, the plankton bait passes through the guide pipe to directly arrive at a position which needs bait, the bait would not diffuse to the whole storage pond, and accordingly the bait density, feeding efficiency and water quality are guaranteed; a feeder can finish feeding at the pond side, and the influence to the growth and survival of the **coral** due to the fact that people in the water disturbs the water environment is avoided.

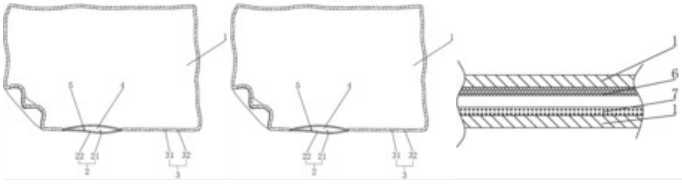




80. **Coral** fine hair blanket — CN207466014 — 2017-10-31 — SHAOXING KEQIAO SANHE TEXTILE CLOTHING* — 2018-06-08 — 2018-06-08

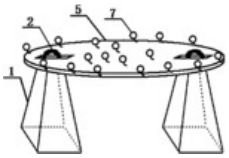
The utility model relates to the field of household items, a **coral** fine hair blanket is disclosed, including the two -layer woollen blanket body of making through **coral** fine hair, include still that two set up two respectively the same first portion of borduring in the edge of woollen blanket body and position, set up two edge between the woollen blanket body and both ends respectively with the second portion of borduring that is connected of both ends of the first portion of borduring, two be formed with between the first portion of borduring with two -layer the communicating turned welt in inside of woollen blanket body. The utility model has the advantages of it is following and effect: bordure to the edge of woollen blanket body alone through the first portion of borduring, the secondportion of borduring bordures to the edge of two -layer woollen blanket body simultaneously, finally is formed with to make the inside turned welt that can the evagination of **coral** fine hair blanket between two first portions of borduring to can wash or insolate **coral** fine hair blanket's inside, reduce **breeding** of bacterium.

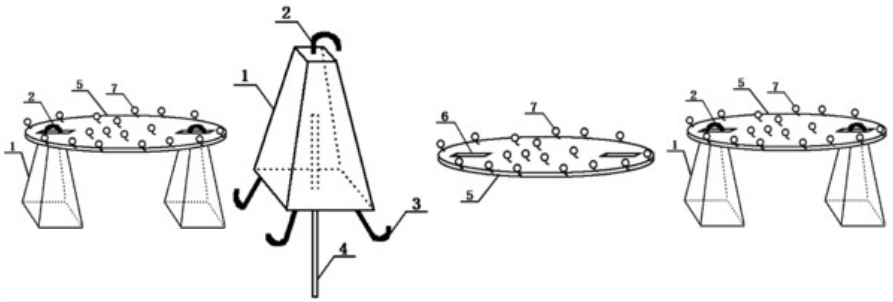




81. Movable **coral** reef base | CN204272928 | 2014-11-12 | HAINAN UNIVERSITY* | 2015-04-22 | 2015-04-22

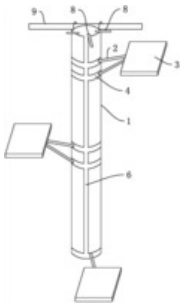
The utility model belongs to the technical field of marine ecological environment manual restoring and relates to a movable **coral** reef base. The movable **coral** reef base comprises a base column and a base plate. The base column is designed to be of a prism frustum structure. Supporting columns and supporting hooks are arranged below the lower bottom face of the base column and around the base column. A locking mechanism is arranged at the top of the base column. The base plate is designed to be of a piece type structure. Fixing holes are formed in the base plate. Attachment rings are uniformly arranged on the upper bottom face and the side face of the base plate at intervals. The movable **coral** reef base is simple in structure, as the movable structure is adopted, the influence on the initial stage of **coral breeding** from the environment can be reduced, the base column and the base plate are utilized for forming a three-dimensional environment, the habitat can be provided for other organisms such as fish, shrimps and crabs in an ecological system, and the movable **coral** reef base has the great significance in **breeding coral** and ecological restoration.

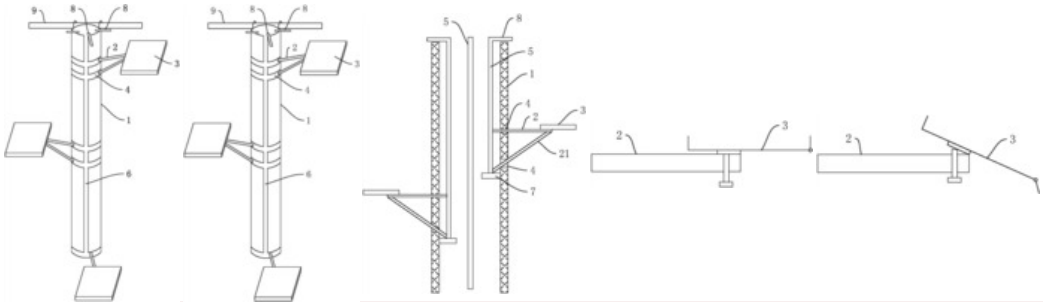




82. A device that is used for artifical indoor cultivation **coral** | CN207100139 | 2017-08-03 | CHINESE ACADEMY OF FISHERY SCIENCES* | 2018-03-16 | 2018-03-16

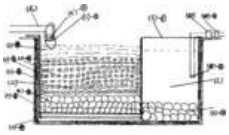
The utility model discloses a device that is used for artifical indoor cultivation **coral** for indoor cultivation **coral**, including the erection column that is vertical layout, the erection column is equipped with at least two -layer cultivation parts, and each cultivates the not co -altitude department that parts lie in the erection column, cultivates parts including connecting at the support of erection column and connecting the **coral** frame in the support outer end for every layer, and the **coral** frame of each layer staggers in vertical orientation each other. The utility model discloses set upthe **coral** frame on vertical layout's erection column, the erection column sets up in the **coral** case to can cultivate the **coral** in the vertical orientation of **coral** case, the rational utilization yourspace of **coral** case, and the **coral** frame staggers in vertical orientation each other, make the **coral** in every layer of **coral** frame all have abundant equitable light conditions.

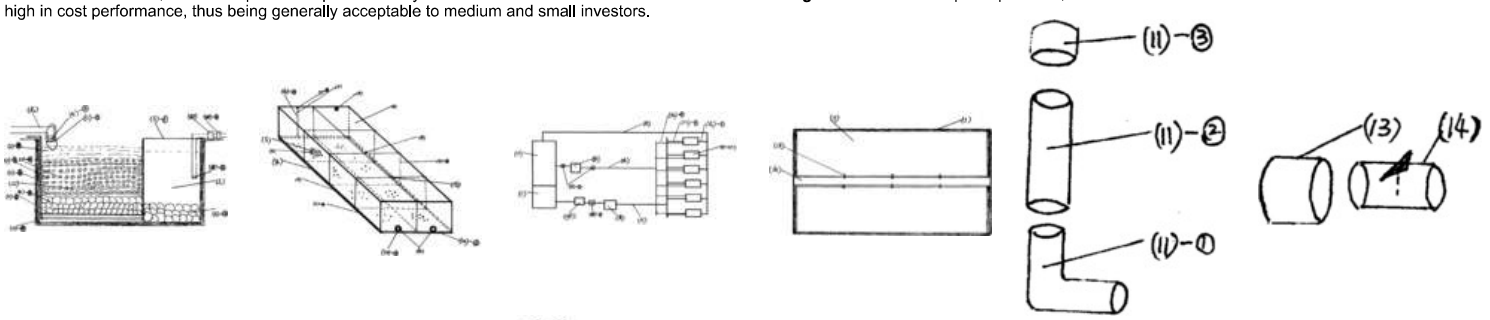


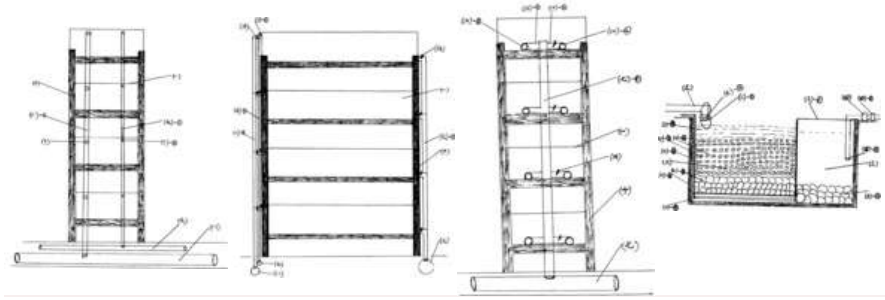


83. Indoor water-circulating three-dimensional multipurpose aquatic product ecological **breeding** device | CN103999813 | 2014-05-21 | WANG LIANCHENG | 2014-08-27 | 2014-08-27

The invention discloses an indoor water-circulating three-dimensional multipurpose aquatic product ecological **breeding** device, and belongs to the field of **breeding** of aquatic products; the device is energy-saving by performing heat preservation treatment to **breeding** facilities; an aquaculture thermostat creates the best growing temperature for aquatic livestock, micro holes in the interlayer of the bottom can supply oxygen until being saturated without dead space, beneficial bacteria are used for controlling harmful bacteria and decomposing feces and residual feeds; medical stones are used for adsorbing heavy metal and purifying water quality, the PH value is adjusted by **coral** sand, and the problem that crabs kill each other is overcome by detachable punched separators and a box cover. Therefore, a good substrate is provided, diseases of the aquatic livestock can be reduced, and a good foundation is built for producing green pollution-free food; the **breeding** density and the rate of survival of the aquatic livestock as well as the feed conversion ratio can be improved due to the proper water temperature and the saturated dissolved oxygen, the growth of the aquatic livestock is facilitated, and the aquaculture production cycle is reduced. The device can be used for **breeding** various kinds of aquatic products, is low in investment and high in cost performance, thus being generally acceptable to medium and small investors.

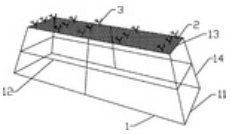


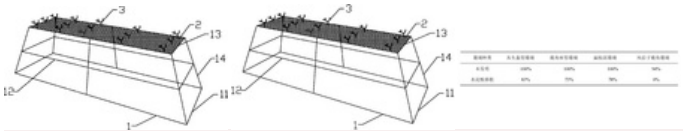




84. Hermatypic **coral** field culturing method and device suitable for high-sedimentation water environment — CN102487899 — 2011-12-01 — SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* — 2012-06-13 — 2012-06-13

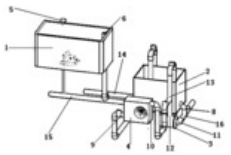
The invention discloses a hermatypic **coral** field culturing method and a device suitable for a high-sedimentation water environment. The method comprises the following steps of: fixing a hermatypic **coral** attachment device at the seabed of a high-sedimentation sea area with the water depth of 3-10cm, wherein the hermatypic **coral** attachment device comprises an attachment screen and a support frame which is positioned below the attachment screen and used for supporting the attachment screen, and the mesh size of the attachment screen is 3-5cm; and fixing hermatypic corals to the attachment screenso as to ensure that the hermatypic corals grow at a height which has a distance above 50cm from the seabed. Compared with the traditional cement block transplantation, by utilizing the hermatypic **coral** field culturing method suitable for the high-sedimentation water environment to culture the hermatypic corals, the survival rate of the hermatypic corals can be improved, the cost also can be reduced by half, and the underwater workload and the underwater work risks are reduced.

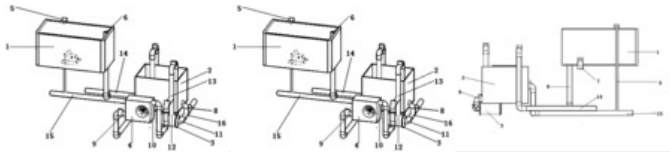




85. Be used for proliferous accuse control by temperature change of **coral** to flow and water purification installation — CN204579555 — 2015-03-20 — CHINESE ACADEMY OF FISHERY SCIENCES* — 2015-08-26 — 2015-08-26

The utility model provides a be used for proliferous accuse control by temperature change of **coral** to flow and water purification installation, breed the water tank and one establish the water purifying box of **breeding** water tank lower limb below in hyperplasia including a hyperplasia, hyperplasia breed the water tank and be equipped with inlet tube, overflow pipe, drain pipe, water purifying box bottom be equipped with the outlet pipe, the overflow pipe be connected with the water purifying box, changes in temperature water machine, its delivery port with the inlet tube be connected, a circulating pump, its water inlet with the outlet pipe with be connected, circulating pump delivery port and changes in temperature water machine water inlet be connected. The utility model discloses store and purify hyperplasia breed waste water, cyclic utilization water with the water purifying box, take out with the sea water of circulating pump in with the water purifying box and heat up or cool down in rising to changes in temperature water machine, make the water tank in the temperature can reach the suitable temperature that satisfies **coral** hyperplasia breed demand, the rivers condition that simulation natural growth **coral** needs to improve the survival rate of **coral** under indoor hyperplasia condition.



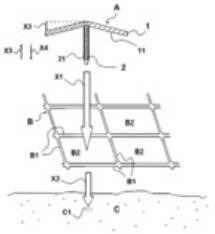


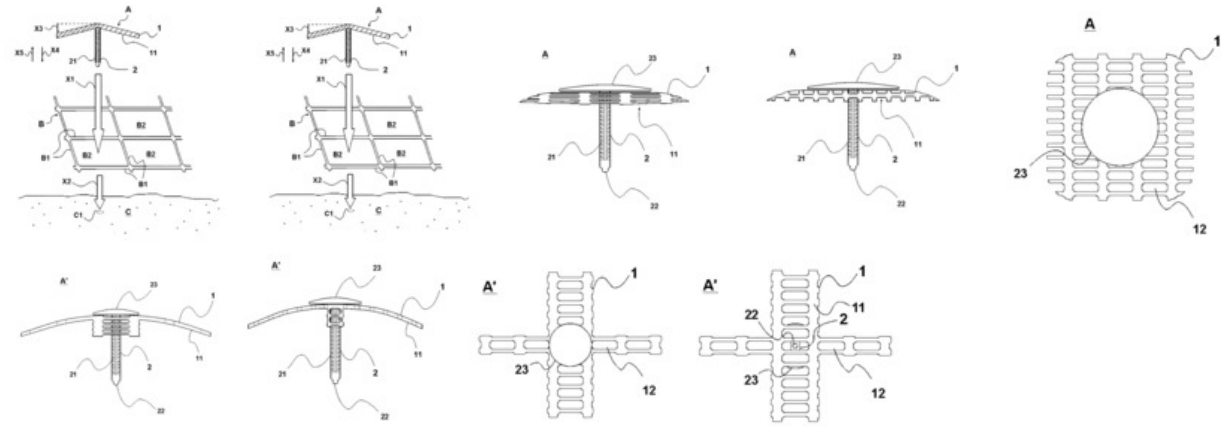
86. Weed species of **coral** cultivation method — CN108575479 — 2018-02-28 — GUANGXI JINHU AGRICULTURE & FORESTRY TECHNOLOGY* — 2018-09-28 — 2018-09-28

The present invention relates to an agricultural planting technology field, in particular to a method of planting grass **coral**, comprising the steps of: (1) optionally, leveling, (2) seedling selection, (3) colonization, (4) a top dressing, (5) intertillage bicidally. The present invention addresses the ever increasingly depleted wild grasses **coral** resources because, while the artificial grass **coral** technology has not been completed of planting, thereby resulting in failure to meet the market demand problem of **coral** to grass, by detecting surface at the same time, the present invention cultivated grass **coral** according to parameters of the respective wild grass with no significant differences in **coral**, "National Formulary" requirements were met.

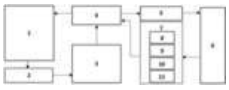
87. Anchor, **coral** growing method and **coral** protection method — JP2014212704 — 2013-04-22 — KAJIMA* — 2014-11-17 — 2014-11-17

PROBLEM TO BE SOLVED: To provide means that can anchor an underwater installation member in the water bottom by simple work and maintain an anchored condition for a long period of time, when installing a grid or net-like underwater installation member in water for the purpose of protecting and growing aquatic organisms.SOLUTION: An anchor A is provided for anchoring an underwater installation member B for protecting or growing aquatic organisms on a surface C to be installed in the water, the anchor including each leg B1 constituting an entity portion by being formed substantially in a grid or net-like pattern and each opening part B2 surrounded by the legs B1, B1, B1, B1. The anchor includes a flange part 1 and a shaft part 2 set up from a back side 11 of the flange part 1. The underwater installation member B is configured to be sandwiched between the flange part 1 and the surface C to be installed, by being driven into the surface C to be installed while the shaft part 2 is inserted in the opening part B2 and the abutment between plural parts of the legs B1 surrounding the opening parts B2 and the back side 11 of the flange part 1 when anchoring the underwater installation member B to the surface C to be installed.

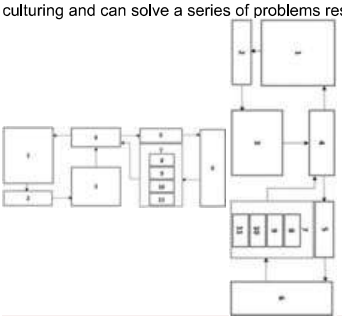




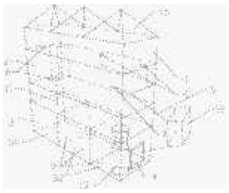
88. Novel seawater purification mode and application in **coral** culturing for scientific research — CN106797896 — 2016-12-29 — HAINAN UNIVERSITY* — 2017-06-06 — 2017-06-06



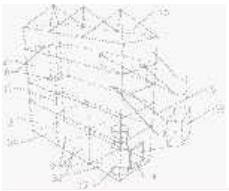
The invention discloses a novel seawater purification mode which is applied in **coral** culturing for scientific research. The novel seawater purification mode is mainly implemented through a **coral** culturing tank, a water purification system and an environment factor adjusting system. A **coral** reef ecological system is established in the **coral** culturing tank, and succession of the **coral** reef ecological system is researched by simulating the changes of a natural sea area through water body environment factor adjustment. The water purification system can effectively solve the problems of nutritive salt enrichment and the like which are generated in the **coral** culturing process. The environment factor adjusting system can simulate the main problems that the **coral** reef ecological system faces at present, and therefore multiple problems that the natural sea area restricts research on the **coral** reef ecological system are solved. In addition, the water purification system is also suitable for seawater aquarium culturing and can solve a series of problems restricting development of the seawater aquarium industry and promote development of the seawater aquarium industry.

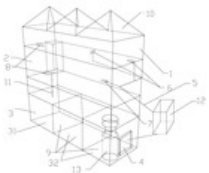


89. Culture system capable of meeting biological functions of ecosystem and suitable for small **coral** reef ecological enjoying pot — CN102919188 — 2012-11-09 — SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* — 2013-02-13 — 2013-02-13

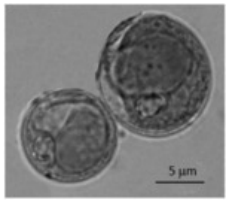


The invention discloses a culture system capable of meeting biological functions of an ecosystem and suitable for a small **coral** reef ecological enjoying pot. The culture system is designed according to biological functions of a **coral** reef ecological system to meet requirements of different ecological **coral** reef living beings for the whole water environment as possible. Thus, the small **coral** reef ecological enjoying pot can be emulational micro **coral** reef, and further the ecological enjoying pot can maintain healthy environments and is healthy in culture and easy to maintain. Simultaneously, the culture system provides mode foundation for hobbyists and practitioners.

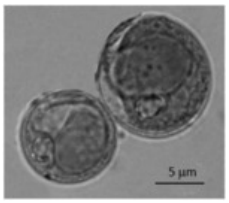


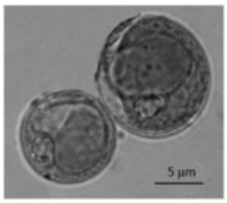


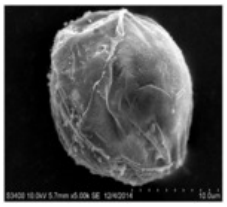
90. Strain of the genus of marine **coral**-derived new, a new isolated and cultured alga and its method — CN108676723 — 2018-06-07 — SHANGHAI JIAO TONG UNIVERSITY* — 2018-10-19 — 2018-10-19

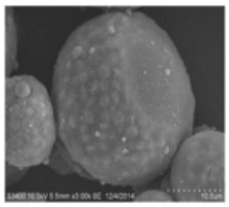


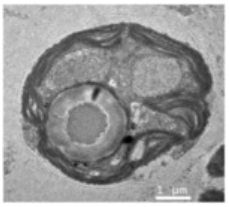
The present invention relates to a strain of the genus of marine **coral**-derived new, a new method and the separation of algal culture; **coral**-derived new metal, it is CCTCC NO: M2018096 **coral**-derived new algae under the accession numbers belonging to a new, novel Symbiochlorium hainandiae Un01 algae; the microalga is the phylum Chlorophyta, st pertains to a new, novel type, with the proximal edge lgae published sources, morphology, there is a large difference evolution; of algae and **coral** and algae is a function of the marine algae research which may provide good research materials a symbiotic relationship, in the **coral** cultivating artificial, **coral** reefs reconstruction, also have potential applications and the like algal material model.

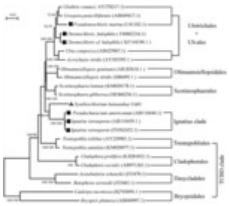


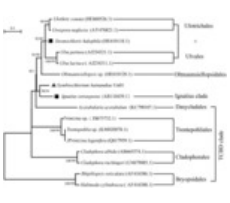


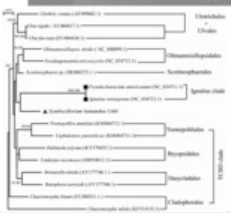






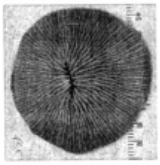


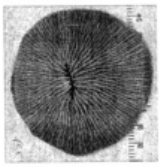


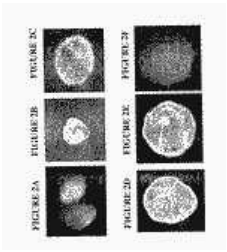


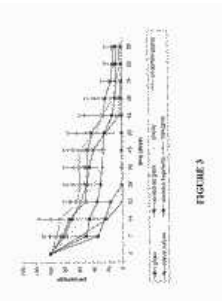
91. Method for **coral** tissue cultivation and propagation — WO2009037698 — 2008-09-17 — RAMOT AT TEL AVIV UNIVERSITY* — 2009-03-26 — 2009-03-26

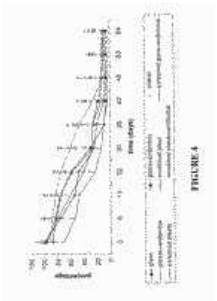
This invention relates to a novel method of culturing **coral** tissues and polyps in vitro. **Coral** tissues obtained by the method of the invention may be maintained as heterotypic spheroid tissue balls for a period of at least three months or they may be induced to undergo development into new polyps, a process termed re-morphogenesis. This method can produce genetic clones of model species from single individuals that can be propagated either as undifferentiated tissue calli or as developed polyps. The products of the invention are of value to a number of educational, scientific, and commercial endeavors. Specifically, this method can be used to propagate genetic clones (strains) of a model organism for scientific research, to serve as 'pro-environmental conservation' sources of **coral** stock for educational specimens as well as a rapidly generated inventory for commercial aquarium industry. The method of the invention can produce sustainable test lines of corals that could be used to generate risk assessments for the impact of chemicals/activities on **coral** reefs, as well as being used as part of a regulatory protocol for testing waste effluent and other discharges.

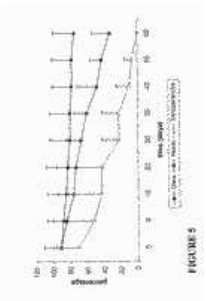


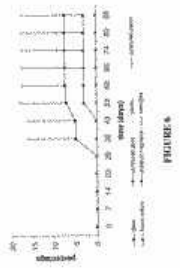


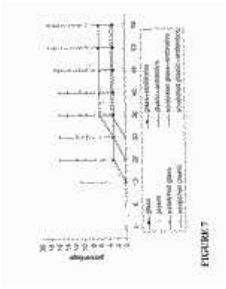




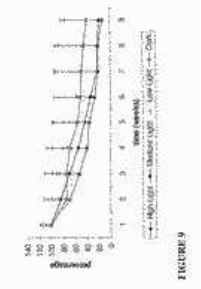








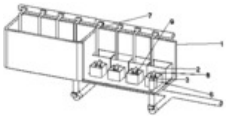


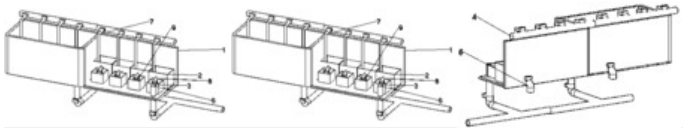




92. Device of cultivating and collecting **coral** embryonated egg — CN204634724 — 2015-04-14 — CHINESE ACADEMY OF FISHERY SCIENCES* — 2015-09-16 — 2015-09-16

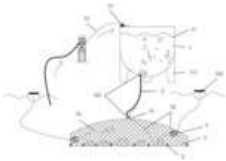
The utility model discloses a device of cultivating and collecting **coral** embryonated egg, include: water tank (1) is hatched to the transparent **coral** of one, and its inside is equipped with the one or more parent and breeds case (2), every an one outlet pipe (8) is provided on the parent breed case (2), outlet pipe (8) respectively access to one embryonated egg collecting box (3), and be in the exit cover of outlet pipe (8) have a detachable, bottom surface embryonated egg collector (9) for the filter screen, one total inlet tube (4), total inlet tube intercommunication item or multi -strip access to each parent and breed the inlet tube of case (2) (7), outlet pipe (8) and drain pipe (four to six - tenehs) in all be equipped with the check valve. The utility model discloses greatly improve the collection efficiency of embryonated egg, saved manpower and material resources to the artificial fecundation survival rate of **coral** embryonated egg has been increased.

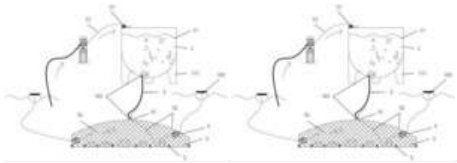




93. Device is broadcast at directional end of **coral** larva — CN205623872 — 2016-05-13 — GUANGDONG OCEAN UNIVERSITY* GUANGDONG OCEAN UNIVERSITY SHENZHEN RESEARCH INSTITUTE* SHENZHEN CITY BIHAI BLUE SKY MARINE TECHNOLOGY* — 2016-10-12 — 2016-10-12

The utility model relates to a device is broadcast at directional end of **coral** larva, including upper end container, honeycomb duct and bottom cover net, wherein upper end container setting is in the top of bottom cover net, and the upper end container passes through the honeycomb duct and is connected with bottom cover net. Compared with the prior art, the beneficial effects of the utility model are that: 1 the utility model provides a device is broadcast at directional end of **coral** larva can prevent that the end from broadcasting the escape of in -process **coral** larva, improves the rate of adhering to of **coral** larva effectively for the restoration in **coral** reef degeneration nature sea area. 2 the utility model provides a device is broadcast at directional end of **coral** larva adopts the sexual propagation means, and unartificial **coral** branch piece is transplanted, and reducible reliance to natural sea area **coral** maternal plant is avoided leading to the fact the injury to natural sea area **coral** maternal plant.



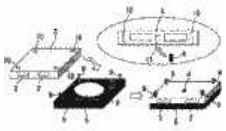


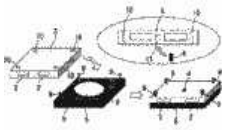
94. Scalloped spiny lobster imitating ecological **breeding** method — CN107410122 — 2017-08-24 — LI YUPEI — 2017-12-01 — 2017-12-01

The invention discloses a scalloped spiny lobster imitating ecological **breeding** method. The scalloped spiny lobster imitating ecological **breeding** method includes the following steps: A, **breeding** region selection; B, **breeding** facility arrangement; C, **coral** stone cavern piling; D, edible seaweed planting; E, offspring putting; F, feeding; and G, **breeding** management. **Breeding** net cages are arranged on a seabed, **coral** stone caverns are piled in the net cages, edible seaweed is plant in the net cages, and a comfortable pure natural growth environment is created for scalloped spiny lobsters; scientific and reasonable **breeding** and feeding breaks through key technologies of the low artificial **breeding** survival rate and the slow growth speed of scalloped spiny lobsters; the acquired scalloped spiny lobster has the same quality as the wild scalloped spiny lobster, has high yield and economic value; and large-scale **breeding** of the scalloped spiny lobsters can be achieved.

95. Artificial seaweed bed — JP2003310088 — 2002-04-26 — AIN SOGO KENKYUSHO* — 2003-11-05 — 2003-11-05

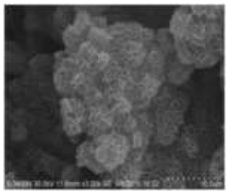
PROBLEM TO BE SOLVED: To protect seaweeds from vermin damages, enhance fish-gathering effect and bring the seaweeds to easily adhere to a seaweed bed.
SOLUTION: The seaweed bed 1 comprises a three-dimensional spring structure 3 having through-holes 2 as a medium for tangle weeds, a cast iron block 4 for generating iron ions and a concrete weight 5 to form a unit so as not to be flown by a sea current. The cast iron block 4 is included in a predetermined spot of the three-dimensional spring structure 3. The through-holes 2 are formed in the longitudinal direction of the tabular three-dimensional spring structure 3, but they may be formed in other directions. The concrete weight 5 is fixed to the three-dimensional structure 3 with an adhesive (mortar or the like) 6 and tightening metal fittings 7 which comprise anchor bolts 8 fixed to a hole and nuts 9 combining to the anchor bolts 8.
COPYRIGHT: (C)2004,JPO

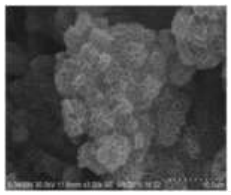


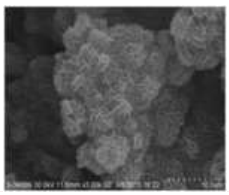


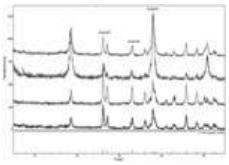
96. Novel **coral** growing matrix with aragonite enrichment function and preparation method and application thereof — CN105660485 — 2016-03-11 — SOUTH CHINA SEA INSTITUTE OF OCEANOLOGY CAS* — 2016-06-15 — 2016-06-15

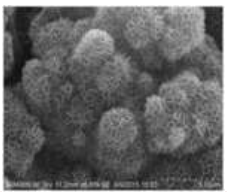
The invention discloses a novel **coral** growing matrix with an aragonite enrichment function and a preparation method and application thereof.According to the preparation method, a seawater electrolysis device is included and comprises a power supply, an anode chamber, a cathode chamber, an anode and a cathode, the power supply is connected with the anode and the cathode through wires, the anode is arranged in the anode chamber, the cathode is arranged in the cathode chamber, an iron stand is taken as the cathode, an inert material is taken as the anode, seawater is taken as an electrolytic substrate to be filled in the anode chamber and the cathode chamber separately, and then electrolysis is performed; calcium carbonate crystals are deposited on the iron stand serving as the cathode, and when calcium carbonate is formed on the surface of the cathode iron stand, the novel **coral** growing matrix with the aragonite enrichment function is obtained.The surface of the iron stand is not prone to rust, the structure of a produced calcium carbonate crystal layer is similar to that of **coral** skeleton crystals, therefore, an ideal attaching matrix can be supplied to marine reef-building organisms, attaching sites are especially supplied to larvae of corals, and the possibility is supplied to acceleration of **coral** calcification and reef forming.









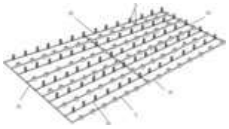


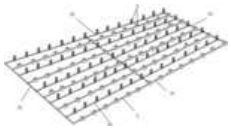
97. Artificial **breeding** method for cheilinus undulatus — CN104255623 — 2014-10-17 — HAINAN UNIVERSITY* — 2015-01-07 — 2015-01-07

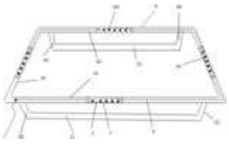
The invention discloses an artificial **breeding** method for cheilinus undulates. The artificial **breeding** method comprises the following steps of: A, selecting a **breeding** pool; B, sterilizing the **breeding** pool; C, injecting water into the **breeding** pool; D, cultivating plankton; E, setting incubators; F, incubating oosperm; G, putting fries into the **breeding** pool; H, managing water quality of the **breeding** pool; I, managing an aerator; J, feeding fries which are 4-5 days old with bait and managing; K, feeding fries which are 5-13 days old with bait and managing; L, feeding fries which are 14-23 days old with bait and managing; M, feeding fries which are 24-28 days old with bait and managing; N, feeding fries which are 29-40 days old with bait and managing; and O, catching the cheilinus undulates. The artificial **breeding** method for cheilinus undulates is applied to the technical field of aquaculture; according to the artificial **breeding** method for cheilinus undulates, juvenile fishes can be bred in bulk. The artificial **breeding** method is scientific, reasonable and efficient.

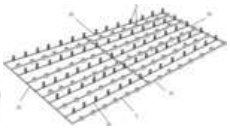
98. Device and method for promoting the growth of stony **coral** by means of micro-current — CN105941288 — 2016-05-05 — GUANGDONG OCEAN UNIVERSITY* GUANGDONG OCEAN UNIVERSITY SHENZHEN RESEARCH INSTITUTE* SHENZHEN CITY BIHAI BLUE SKY MARINE TECHNOLOGY* — 2016-09-21 — 2016-09-21

The invention relates to a device and method for promoting the growth of stony **coral** by means of micro-current. The device comprises a power supply component, a low voltage energization net, a **coral** fixator, a graphite rod or titanium net; wherein the low voltage energization net is made of conducting material and is electrically connected with the positive output end of the power supply component; the graphite rod or titanium net is installed above the low voltage energization net and is electrically connected with the negative output end of the power supply component; the **coral** fixator is installed on the low voltage energization net.

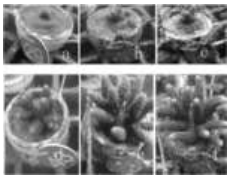












99. **Coral** sand stone-like coating and preparation method thereof | CN104962140 | 2015-04-23 | KUNSHAN UNITED ENVIRONMENT PROTECTION PAINT* | 2015-10-07 | 2015-10-07

The invention discloses a **coral** sand stone-like coating, which comprises the following raw materials in part by mass: 1-750 parts of **coral** sand, 1-750 parts of quartz sand, 1-5 parts of cellulose, 5-30 parts of auxiliary agents, 2-5 parts of pigments, 1-20 parts of glycol, 30-250 parts of emulsions, and 80-200 parts of water. The oral sand stone-like coating provided by the invention is added with **coral** sand, because of abundant aperture structures, the oral sand stone-like coating has good moisture and air permeability, and can decompose harmful substances. The oral sand stone-like coating provided by the invention does not contain formaldehyde, and absorbs harmful substances in the air, has moisture and air permeability, and can kill bacteria and prevent bacteria **breeding**. In addition, the preparation method of the oral sand stone-like coating provided by the invention has the advantages of simple preparation method, construction convenience, safety and environmental protection.

珊瑚砂	1-750 份；
石英砂	1-750 份；
纤维素	1-5 份；
助剂	5-30 份；
颜料	2-5 份；
乙二醇	1-20 份；
乳液	30-250 份；
水	80-200 份。

珊瑚砂	1-750 份；	珊瑚砂	100-500 份；
石英砂	1-750 份；	石英砂	150-450 份；
纤维素	1-5 份；	纤维素	2-4 份；
助剂	5-30 份；	助剂	8-20 份；
颜料	2-5 份；	颜料	3-4 份；
乙二醇	1-20 份；	乙二醇	5-10 份；
乳液	30-250 份；	乳液	80-160 份；
水	80-200 份。	水	100-150 份。

100. Tadpole **hatchery** that sour jujube chest frog was bred | CN206641229 | 2017-04-13 | ZHEJIANG OCEAN UNIVERSITY* | 2017-11-17 | 2017-11-17

The utility model provides a tadpole **hatchery** that sour jujube chest frog was bred belongs to aquaculture technical field. This tadpole **hatchery** that sour jujube chest frog was bred, including the cell body, the cell body middle part is equipped with the moisturizing pipe of vertical setting, moisturizing pipe head opening, and the bottom is fixed in the bottom of cell body and is fed through external water pipe, it has floated screen cloth hatching board to distribute around the moisturizing pipe in the cell body, and screen cloth hatching board fixed position is less than moisturizing pipe head opening, screen cloth hatching board upper berth is equipped with hatching stone. The utility model provides a tadpole **hatchery** that sour jujube chest frog was bred, it is that screen cloth hatching board is hatched and is bred to adopt floatedly, has guaranteed aquaculture environment's cleanness, improves the tadpole survival rate.

