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1. **Diet composition of the large scyphozoan jellyfish Chrysaora plocamia in a highly productive upwelling centre off northern Chile**
   大型钵水母 Chrysaora plocamia 在智利北部一个高产的上升流中心的饮食组成
   http://www.tandfonline.com/doi/full/10.1080/17451000.2013.863353#.U6jPC-b3T4Q

   Jellyfish are arguably one of the most important predators in the sea, and understanding their role in ecosystem functioning is critical. Modelling seems the best approach to understand and forecast their role, but these efforts are seriously hampered by the scant knowledge of the detailed diet composition of most species. We sampled a population of the largest scyphomedusa (*Chrysaora plocamia*) from an upwelling centre in the Humboldt Current Upwelling System. Fish eggs/larvae and holoplanktonic crustaceans represented a substantial proportion (between 52.4% and 99.3%) of the diet of *C. plocamia* and that of other species within the genus*Chrysaora*, thus highlighting their potential impact in ecosystems sustaining large fisheries. The diet composition of *C. plocamia* displayed a strong temporal variability pattern that seemingly reflects the control of upwelling pulses on population dynamics of the species being predated by this medusa.

2. **Dangerous jellyfish blooms are predictable**
   危险的水母暴发可以预测
   http://rsif.royalsocietypublishing.org/content/11/96/20131168

   The potentially fatal Irukandji syndrome is relatively common in tropical waters throughout the world. It is caused by the sting of the Irukandji jellyfish, a family of box jellyfish that are almost impossible to detect in the water owing to their small size and transparency. Using collated medical records of stings and local weather conditions, we show that the presence of Irukandji blooms in coastal waters can be forecast on the basis of wind conditions. On the Great Barrier Reef, blooms largely coincide with relaxation of the prevailing southeasterly trade winds, with average conditions corresponding to near zero alongshore wind on the day prior to the sting. These conditions are consistent with hypotheses long held by local communities and provide a basis for designing management interventions that have the potential to eliminate the majority of stings.

3. **Jellyfish blooms in the Northern Adriatic Sea: Fishermen's perceptions and economic impacts on fisheries**
   北部亚得里亚海的水母暴发：渔民观念和对渔业的经济影响
   http://www.sciencedirect.com/science/article/pii/S0165783614000617

   Extensive blooms of gelatinous macrozooplankton species ('Jellyfish") have appeared in recent decades in Northern Adriatic (NA) waters. Anecdotal evidence suggests that these blooms have had a considerable impact on fishing operations, as this region is one of the most heavily exploited Mediterranean fishing grounds. In order to gain a better understanding of the possible economic losses for the Italian NA fishing industry due to jellyfish impacts, we conducted a survey of fishermen in the city of Chioggia, which is the main fishing port for the NA basin. The study focused on fishermen's perceptions about jellyfish blooms in the NA Sea and also investigated whether and how blooms compromised fishing operations. Survey results confirm that blooms have negatively affected fishing operations in the last few decades. We estimate that economic losses due to reduction in fish catches could amount to as much as (sic) 8.2 million per year for the Italian NA trawling fleet. Other costs on this fleet include additional fuel costs due to displacement of fishing operations, which could represent an increase in costs of over (sic) 460,000 per year. Moreover, during a jellyfish bloom episode it can happen that time has to

be spent by fishermen to repair nets damaged by jellyfish caught in them, leading to an estimated cost for the trawling fleet and small scale fisheries of over 89,000 man-hours per year. This study not only confirms that jellyfish blooms have a considerable impact on fishing operations but also shows how costly blooms can be for the NA fisheries.

4. **Community structure and spatial distribution of macrobenthos in the shelf area of the Bering Sea**
   白令海大陆架区域大型底栖生物的群落结构和空间分布
   http://link.springer.com/article/10.1007%2Fs13131-014-0491-9

  Field investigations of marine macrobenthos were conducted at ten sites in the Bering Sea in July 2010. Altogether 90 species of macrobenthos belonging to 59 families and 78 genera were identified. Among them, 41 polychaetes, 16 mollusks, 23 crustaceans, three echinoderms, two cnidarians, one nemertean, one priapulid, two sipunculids, and one echiuran were identified. The average density and biomass of total macrobenthos were 984 ind./m^2 and 1 207.1 g/m^2 of wet weight, respectively. The predominant species in the study area were *Scoloplos armiger*, *Eudorella pacifica*, *Ophiura sarsii*,*Heteromastus filiformis*, *Ennucula tenuis*, and *Harpiniopsis vadiculus* by abundance, while the predominant species in this area was *Echinarachnius parma* by biomass. Hierarchical cluster analysis (Bray-Curtis similarity measure) revealed that two important benthic assemblages in the study area were Community A and Community B. Community A was stable and Community B was unstable, as shown by the Abundance/Biomass Comparisons (ABC) approach. The macrobenthic community structure in the shelf of the Bering Sea was characterized by its high abundance and biomass, high productivity but great heterogeneity.

5. **Pelagia benovici sp nov (Cnidaria, Scyphozoa): a new jellyfish in the Mediterranean Sea**
   地中海的一种新水母
   http://biotaxa.org/Zootaxa/article/view/zootaxa.3794.3.7

  A bloom of an unknown semaestome jellyfish species was recorded in the North Adriatic Sea from September 2013 to early 2014. Morphological analysis of several specimens showed distinct differences from other known semaestome species in the Mediterranean Sea and unquestionably identified them as belonging to a new pelagiid species within genus *Pelagia*. The new species is morphologically distinct from *P. noctiluca,* currently the only recognized valid species in the genus, and from other doubtful *Pelagia* species recorded from other areas of the world. Molecular analyses of mitochondrial cytochrome *c* oxidase subunit I (COI) and nuclear 28S ribosomal DNA genes corroborate its specific distinction from *P. noctiluca* and other pelagiid taxa, supporting the monophyly of Pelagiidae. Thus, we describe *Pelagia benovici* sp. nov. Piraino, Aglieri, Scorrano & Boero.

6. **Elemental Composition of Mnemiopsis leidyi A. Agassiz 1865 and Its Implications for Nutrient Recycling in a Long Island Estuary**
   Mnemiopsis leidyi A. Agassiz 1865 的元素组成及其所反映的长岛河口营养循环
   http://link.springer.com/article/10.1007%2Fs12237-013-9636-x

  The ctenophore *Mnemiopsis leidyi* is an ecologically important predator in temperate coastal environments. Their populations fluctuate seasonally, serving as sinks of nutrients during periodic blooms, but as sources via excretion and during population collapse.

Ctenophores were analyzed for elemental composition (C, N, and P) during 2008 and 2009 in Great South Bay, NY, USA. Salt-free weight percent C, N, and P correlated positively with ctenophore sizes and zooplankton prey abundances. Nitrogen and P were higher at the onset of blooms than during collapse when prey were substantially fewer. Ctenophores collected during average to high zooplankton densities had atomic ratios averaging C/N ~6:1 and C/P ~66:1, but became C- and P-depleted (C/N ~5:1, C/P ~128:1) with decreasing zooplankton. Incubations demonstrated rapid remineralization of ctenophore biomass (as NH_4^+, HPO_4^{2-}), following first order kinetics (e.g., k ~0.1–0.4 day^{-1}) with enriched stoichiometric N and P fractionation relative to biomass under both oxic and anoxic conditions. Based on reported excretion rates, nutrient regeneration from excretion by active populations greatly exceeds nutrients remineralized during population crashes. To our knowledge, this is the first study documenting natural seasonal patterns in ctenophore elemental stoichiometry as a function of ctenophore size and prey availability.

7. **First occurrence of Beroe forskalii (Ctenophora) in South American Atlantic coastal waters, with notes on the use of macrociliary patterns for beroid identification**
   Beroe forskalii（栉水母类）在南美大西洋沿海水域首次出现及 macrociliary 模式对 beroid 识别的应用
   http://biotaxa.org/Zootaxa/article/view/zootaxa.3779.4.5

Beroe forskalii Milne Edwards, 1841 is an oceanic ctenophore with a global distribution. The present study provides the first record of Beroe forskalii for the South American Atlantic coast, including a redescription of the species and a discussion on the utility of macrociliary patterns for the correct identification of at least some beroid species, exemplified by a comparison of the macrociliary patterns of Beroe forskalii and Beroe ovata (Chamisso & Eysenhardt, 1821).

8. **MORPHOLOGY AND CLASSIFICATION OF SIPHONOPHORES (BASED ON TRADITIONAL AND ADVANCED CONCEPTS**
   SIPHONOPHORES 水母的形态与分类
   http://www.maikonline.com/maik/showArticle.do?auid=VAHSH2YFEG&lang=ru

The necessity to use data on the morphology embryology and life cycle of siphonophores along with results obtained by phylogenetic systematic methods to justify their classification is discussed. Twelve non-recorded previously characters pointing to the unique position of Siphonophora in relation to hydrozoangroups of the same taxonomic rank are described. An idea to consider Siphonophora as an independent class within the type of Cnidaria is considered. The position of specialists on phylogeny who neglect phenotypic characters and their importance for the solution of phylogenic and classification problems is criticized.

9. **Density estimation of the giant jellyfish Nemopilema nomurai around Japan using an alternative modified detection function for left truncation in a line transect survey**
   巨型水母 Nemopilema nomurai 在日本周边的密度调查
   http://link.springer.com/article/10.1007%2Fs12562-013-0696-4

Information on the distribution and bloom scale of the giant jellyfish *Nemopilema nomurai* is necessary to understand the impact on fisheries. In October 2009, we had an opportunity for visual counting of *N. nomurai* around Japan from a research/training vessel. To take into account possibly severe missed detection of *N. nomurai* in the close vicinity of

the vessel, detection functions were modified by introducing an additional parameter δ expressing the proportion of detectable *N. nomurai* within a threshold perpendicular distance. Some covariate effects in the detection process were also investigated. The δ-modified hazard-rate detection function with δ variation parameter of jellyfish body size was chosen as the best-fit one by AIC model selection. The results suggested that a higher proportion (>30 % or more) of *N. nomurai* were undetected in the vicinity of vessel. The δ-modified model had an advantage of no loss of left-truncated data and provided better estimation of density with the smaller coefficient of variation than the conventional left truncation approach. It is applicable to other line transect surveys, e.g. aerial surveys. High densities of *N. nomurai* were found in the central part of the Sea of Japan and off Iwate Prefecture.

10. Impact of Stinging Jellyfish Proliferations along South Italian Coasts: Human Health Hazards, Treatment and Social Costs

水母繁殖对南意大利海岸的影响：人类健康危害，治疗和社会成本

http://www.mdpi.com/1660-4601/11/3/2488

Stinging jellyfish outbreaks represent a health hazard, causing contact dermatitis and systemic reactions. This study investigated the epidemiology, severity, and treatment protocols of jellyfish stings in a coastal area with high tourist development and frequent stinging jellyfish outbreaks of the central Mediterranean (Salento, Southern Italy), and the associated costs for the Italian National Health Service. In 2007–2011, 1,733 bathers (mostly children and females) sought medical assistance following jellyfish stings, the main cause of human pathologies due to contact with marine organisms. The majority of events were reported in the years 2007–2009, whereas the occurrence of cnidarian jellyfish outbreaks has been increasingly reported in the same area since summer 2010. Most symptoms were limited to local and cutaneous reactions; conversely, 8.7% of cases evoked complications, mainly due to allergic reactions. The main drugs used were corticosteroids, locally applied and systemic (46% and 43%, respectively), and with ammonia (74%) as the main non-pharmacological treatment. The estimated cost of jellyfish-related first-aid services along the Salento coastline over the 5-year period was approximately 400,000 Euros. Therefore the management of jellyfish outbreak phenomena need coordinated research efforts towards a better understanding of underlying ecological mechanisms, together with the adoption of effective prevention policy, mitigation strategies, and appropriate planning of health services at tourist hot spots.

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