



## International Diving Education and Application Symposium (IDEAS) 2015: "Tomorrow's Marine Scientists"

国际潜水教育与应用研讨会 2015: 明日海洋科学家  
19 – 24.07.2015

### First Announcement 第一轮会议通知

#### 1. Introduction 简介

The International Scientific Diving Education and Application Symposium (IDEAS) 2015 is organized and sponsored jointly by the City University of Hong Kong (CityU) and the Diving Adventure Limited, which will take place in Hong Kong SAR from 19<sup>th</sup> to 24<sup>th</sup> July, 2015. On the basis of “The Spin Kid” and “Ocean Plus” Projects which have been initiated since 2012, the IDEAS will provide training of practical skills in scientific diving.

The aim of the IDEAS is to nurture "**Tomorrow's Marine Scientists**". The IDEAS acts as a platform to nurture young scientists via direct interaction and discussion with researchers/scientists in the field. It also provides participants with a valuable opportunity for career advancement, personal enrichment and the development of social awareness of and responsibility to the environment. We continue our mission to provide high quality, interactive teaching and NEW learning experiences (including lectures, diving skills training, field trips, underwater marine biology classes, student presentations and an open scientific forum) to the participants.

国际潜水教育与应用研讨会 (IDEAS) 2015 由香港城市大学及潜水历险会联合主办, 将于 2015 年 7 月 19 至 24 日假香港举行。以 2012 年起动的「哪咗」计划及海洋+ 计划为基础, 是次研讨会将提供实用的科学潜水技能培训。

IDEAS 的目的是培育“明日海洋科学家”。IDEAS 将为青年科学家提供了一个与相关领域世界级科学家的直接互动与讨论的平台。它同时为参加者的职业发展, 自我增值以及环保意识和责任感的发展提供了宝贵机会。我们将通过讲座, 潜水技能培训, 实地考察, 水下海洋生物课堂, 学生演讲和开放科学论坛等活动, 贯彻为参与者提供高质量的, 交互式的教学和新型的学习体验的宗旨。

#### Mission 使命

Through scientific safety diving education, we aim to elevate underwater research, ocean survey and exploration capabilities in order to better serve marine environmental science research, innovative technological development and underwater diving safety; and, at the same time, enhance underwater scientific development in the Greater China region; promote worldwide collaboration; and heighten public awareness in protecting the ocean.



通过科学安全潜水的教育，我们希望能提高水下研究、海洋调查和勘探的能力，以更好地服务于海洋环境科学的研究，创新技术开发及潜水安全。同时加强大中华区水下科学的发展，促进全球合作，提高保护海洋的公众意识。

### Objectives 目标

- To enhance our knowledge and pursue exploration of the complexity of the marine environment in innovative ways;
  - To elevate the underwater safety and exploration technological level to better serve marine ecological surveying, ocean exploration and underwater safety; and
  - To nurture innovative talents with the ability for underwater research.
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- 以创新方式加强我们对海洋复杂环境的认知及探索;
  - 提高水下安全性及探测技术水准，更好地为海洋生态调查，海洋勘探和 underwater 安全服务;
  - 要培育具有水下科研能力的创新型人才。

### Previous experience 过往经验

In May 2014, the SKLMP successfully organized the first International Diving Education and Application Symposium (IDEAS 2014) at the City University of Hong Kong, with participants including professors, researchers, government officials, undergraduates and graduate students from the University of Connecticut; City University of Hong Kong; Chinese University of Hong Kong; The University of Hong Kong; Hong Kong Baptist University; Hong Kong Institute of Education; Agriculture, Fisheries and Conservation Department of Hong Kong Government; National Taiwan Cheng Kung University; Xiamen University; Tsinghua University; Shantou University; Second Institute of Oceanography of State Oceanic Administration; and the Science, Technology and Innovation Commission of Shenzhen Municipality. The symposium covered topics ranging from scientific meetings, scientific diving courses and training, to a scientific safety divers workshop and open-water divers workshop. Participants reached consensus on future cooperation through academic exchanges, discussion and practices hoping to capitalize on scuba diving for underwater scientific research and scientific diving education. We all believed that research and development of recreational and scientific diving in terms of theories, techniques and equipment requires support from government, enterprises, scientific research institutions and the public.

2014年5月，SKLMP在香港城市大学成功地举办了第一届国际潜水教育与应用研讨会（IDEAS 2014）。参加者包括教授，研究人员，政府官员，及本科生和研究生。他们来自康涅狄格大学、香港城市大学、香港中文大学、香港大学、香港浸会大学、香港教育学院、香港渔农自然护理署、国立台湾成功大学、厦门大学、清华大学、汕头大学、国家海洋局第二海洋研究所、深圳市科技创新委员会。本次研讨会的内容包括科学会议，科学潜水课程与培训，科学安全潜水员工作坊及开放水域潜水员工作坊。参与者通过学术交流，讨论与实践对未来的合作达成共识，希望利用潜水开展水下科学研究和科学潜水教育。我们一致认同：无论休闲潜水还是科学潜水在理论，技术和设备方面的研究和发展均需要来自政府，企业，科研机构和公众的支持。



## Response to IDEAS 受访者的回应

Starting from 17<sup>th</sup> January and closing on 15<sup>th</sup> February, 2015, the IDEAS questionnaire received 72 valid responses. Respondents came from universities, research institutes and diving institutions in mainland China, Hong Kong, Taiwan and elsewhere in South East Asia. The majorities were postgraduates and undergraduates with a science or engineering academic background and their ages ranged from 15 to 45.

In terms of the respondents' diving interest and knowledge, the majority of them are interested in marine scientific research development and marine conservation. More than 50% of the respondents knew something about recreational diving but hardly knew about scientific diving and could not tell the difference between them.

For diving course participation, more than 90% of the respondents would like to participate in diving activities such as underwater marine biology lectures and marine ecotourism, expecting to apply diving skills in their future marine scientific research. According to this questionnaire, 19 respondents will attend the workshop for scientific diving instructor; 29 respondents will attend the workshop and symposium on scientific diver training and underwater sciences and technology; and 56 respondents will attend the international scientific diving education and application summer school.

Most of the respondents were eager to receive IDEAS information such as participants' selection criteria, symposium announcement and schedule. Some respondents suggested that IDEAS should include courses about aquaculture, ecology and other activities to promoting scientific research.

IDEAS 调查问卷历时一个月(自 2015 年 1 月 17 日至 2015 年 2 月 15 日), 共收回有效答复 72 份。在人员信息方面, 参与问卷人员多来自中国内地, 香港, 台湾及东南亚国家等地的高校, 科研院所及潜水机构, 以高校硕士研究生及本科生为主, 学术背景多为理科和工科, 年龄介于 15 至 45 岁。

在潜水知识与兴趣方面, 绝大部分答卷者都对海洋科学研究与保育有兴趣。在潜水知识方面, 过半答卷者较了解休闲潜水, 对于科学潜水的理解比较粗略, 也不甚了解科学潜水与休闲潜水之间的区别。在潜水参与度方面, 超过 90%的答卷者愿意参与潜水相关活动, 如水下海洋生物课程, 水下生态旅游, 希望将学得潜水技能应用于未来的海洋科学研究。

大多数答卷者希望获得更多 IDEAS 信息, 如参与的资格, 会议通知与会议议程等。部分答卷者也希望可以附带关于水产养殖, 生态学等相关研究的课程, 以潜水推动科学发展。



## 2. Organizers 主办单位

- State Key Laboratory in Marine Pollution, City University of Hong Kong (SKLMP)  
香港城市大学海洋污染国家重点实验室
- Shenzhen Key Laboratory for the Sustainable Use of Marine Biodiversity (SUMB),  
Research Centre for the Oceans and Human Health, City University of Hong Kong  
Shenzhen Research Institute (CityU SRI)  
香港城市大学深圳研究院深圳海洋生物多样性可持续利用重点实验室
- Diving Adventure Limited, Hong Kong (DA)  
香港潜水历险会

## Co-organizer 协办单位

- National Natural Science Foundation of China (NSFC) (TBC)  
国家自然科学基金委员会 (TBC)

## Members of Organizing Committee (listed in alphabetical order):

组委会成员（按字母顺序排列）：

**Mr. Stephen AU**, Diving Adventure Limited, Hong Kong;

**Dr. Leo L. CHAN**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Prof. Paul K.S. LAM**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Dr. Priscilla LEUNG**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Dr. Maggie Y.L. MAK**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Mr. Raymond MAN**, Shenzhen Key Laboratory for the Sustainable Use of Marine Biodiversity, City University of Hong Kong Shenzhen Research Institute;

**Dr. Tak-Cheung WAI**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Dr. Jiajun WU**, State Key Laboratory in Marine Pollution, City University of Hong Kong.

区绍坚 先生，香港潜水历险会；

陈荔 博士，香港城市大学海洋污染国家重点实验室；

梁度因 博士，香港城市大学海洋污染国家重点实验室；

林群声 教授，香港城市大学海洋污染国家重点实验室；

麦艳玲 博士，香港城市大学海洋污染国家重点实验室；

万志权 先生，香港城市大学深圳研究院深圳海洋生物多样性可持续利用重点实验室；

韦德祥 博士，香港城市大学海洋污染国家重点实验室；



吴佳俊 博士，香港城市大学海洋污染国家重点实验室。

**Conference Secretariat (listed in alphabetical order):**

大会秘书处（按字母顺序排列）

**Ms. Chih-Ning LIU**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Ms. Hui MA**, Shenzhen Key Laboratory for the Sustainable Use of Marine Biodiversity, City University of Hong Kong Shenzhen Research Institute;

**Ms. May NG**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Mr. Reece WARTENBERG**, State Key Laboratory in Marine Pollution, City University of Hong Kong;

**Dr. Meng YAN**, State Key Laboratory in Marine Pollution, City University of Hong Kong.

刘致宁 女士，香港城市大学海洋污染国家重点实验室；

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**Mr. Reece WARTENBERG**，香港城市大学海洋污染国家重点实验室；

晏萌 博士，香港城市大学海洋污染国家重点实验室。



### 3. Program 课程

## Program of International Diving Education and Application Symposium (IDEAS) 国际潜水教育与应用研讨会会议议程

IDEAS					
Date 日期	Time 时间	Content 内容		Person in charge 负责人/机构	Venue 地点
		Non certified diver 非认证潜水员	Certified open water diver or above 开放水域潜水员或以上		
19/7	15:00-18:00	Registration 注册		SKLMP	TBC 容后公布
20/7	10:00 – 12:30	Sharing session with diving instructors and experienced divers 潜水经历分享会		Raymond Man	B4302, Academic Building 1 (AC1), CityU
21/7	08:30-18:00	Swimming pool training session (Water assessment) 开放水域潜水员泳池训练 (游泳评估)	/	DA	Hong Kong Baptist Assembly 香港浸会园
22/7	08:45-16:00	Open water training session 出海训练	SCUBA review (Open water) 水肺复习 (出海)	DA	Sai Kung 西贡
23/7	08:45-16:00	Open water training session 出海训练	Local diving 本地潜水	DA	Sai Kung 西贡
24/7	08:45-16:00	Scientific diving 科学潜水 (Underwater photography x 2; Team Scientist x 2; Ambassador x 1; 8 Groups: 1 Team leaders; 4 Students) 1. Fish Identification 鱼类辨识 <ul style="list-style-type: none"> <li>How to identify the characteristics of local fish 如何辨认本地鱼的种群特征</li> <li>How to implement the dive planning, organization and procedures for fish identification 如何实施鱼类辨识潜水计划、组织及程序</li> </ul> Or 或 2. Underwater Naturalist 水下自然观察家 <ul style="list-style-type: none"> <li>Recognize the major aquatic organisms, interactive behaviors, and understand the actual underwater world 认识主要水中生物族群、互动行为方式, 了解真实的水下世界</li> <li>Understand the role of the underwater plants, food chain, and the relationship between Predators and prey 认识水中植物、食物链和捕食者所扮演的角色与猎物间的关系</li> </ul> Learn how to interact with the marine ecosystem and our responsibilities 应如何与海洋生态系统互动及需肩负的责任		Raymond Man	Sai Kung 西贡
	17:30-19:30	Graduation Dinner 毕业晚宴			TBC 容后公布

**\*\* Theory session by e-learning (To be completed on or before 15 July)**

**\*\*通过在线学习潜水理论 (在 7 月 15 日或之前完成)**





#### 4. Registration and Payment 报名及付款

- Early bird registration: On or before 25<sup>th</sup> May, 2015  
及早注册: 在 2015 年 5 月 25 日或之前  
HK\$10,000/US\$1250 (Non-certified diver 非认证潜水员)  
HK\$7,000/US\$875 (Certified open water diver or above 开放水域潜水员或以上)
  - Advanced registration: After 25<sup>th</sup> May, 2015  
会后注册: 2015 年 5 月 25 日之后  
HK\$12,000/US\$1500 (Non-certified diver 非认证潜水员)  
HK\$9,000/US\$1125 (Certified open water diver or above 开放水域潜水员或以上)
  - On-site registration: 1<sup>st</sup> – 15<sup>th</sup> July, 2015  
现场注册: 2015 年 7 月 1 – 15 日  
HK\$15,000/US\$1875 (Non-certified diver 非认证潜水员)  
HK\$12,000/US\$1500 (Certified open water diver or above 开放水域潜水员或以上)
    - *Registration fee included (1) Training fee, (2) Rental of equipment, (3) Certificate, (4) Transportation between symposium venue, (5) Accommodation, (6) Lunch and graduation dinner, and (7) Symposium T-shirt*  
注册费包括: (1) 培训费, (2) 设备租用, (3) PADI 证书, (4) 研讨会会场间之交通, (5) 住宿, (6) 午餐和毕业晚餐及 (7) 研讨会短袖圆领运动衫
    - *Overseas or mainland participants are responsible for their own expenses in Hong Kong*  
海外或内地参与者须自行负责来港费用
  - Any profit generated from the symposium will be donated to “The Spin Kid” Project to support students with financial difficulties  
从研讨会中产生的任何利润将捐献给“哪咭计划”以支持经济有困难的学生
  - No. of participants (selected on a first-come first-serve basis)
    - 25 – 50 (Non-certified diver)
    - 10 (Certified open water diver or above)参与者人数 (先到先得)
    - 25 – 50 (非认证潜水员)
    - 10 (开放水域潜水员或以上)
- If the minimum number of participants is not reached, the organizer reserves the right to cancel the symposium.**  
**如果没有达到最少参加人数, 主办方保留取消研讨会的权利**
- Best Student Awards (Number: 2), offering a 50% discount of registration fee (on a reimbursement basis)  
最佳学生奖 (名额:2), 提供 50 %注册费减免优惠 (以报销形式)



- Please kindly fill in and return the registration form by email 敬请填写并通过电邮交回课程申请表:  
Email: ideas2015@cityu.edu.hk

## 5. Safety Notes and Requirement 安全注意事项和要求

- Water assessment for non-certified diver (swimming for 200 m and water treading for 10 mins) 非认证的潜水员需进行游泳评估 (游泳 200 米及踩水 10 分钟)
- Participants are required to fill in and return the following forms by email before joining the IDEAS 2015. 如获录取, 敬请填写并通过电邮交回以下表格:
  - (a) Medical statement (If there is any “Yes” to questions on the medical statement, please consult your doctor before joining our courses for safety purposes);
  - (b) Liability release;
  - (c) Statement of standard safety; and
  - (d) Payment(Please download at "Forms for download")

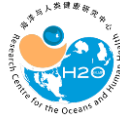
## 6. Symposium Venue 研讨会会场

- B4302, Academic Building 1 (AC1), CityU  
香港城市大学, 教学楼 1 (AC1), B4302 室
- Hong Kong Baptist Assembly  
香港浸会园

## 7. Accommodation and Transportation 住宿和交通

- CityU student hall 香港城市大学学生宿舍  
Check-in 入住 19/07/2015;  
Check-out 退房 25/07/2015
- Pick-up service between City University of Hong Kong and Hong Kong Baptist Assembly  
来往香港城市大学及香港浸会园的接送服务
- Pick-up service between City University of Hong Kong and Sai Kung  
来往香港城市大学及西贡的接送服务

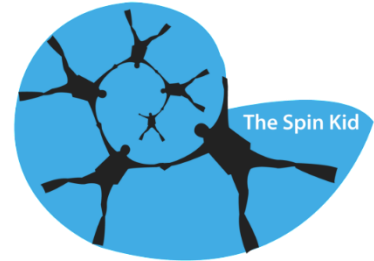




## 8. Spin Kid Project 「哪咤」计划

Not only working actively at the frontier of marine pollution research, social responsibility is also one of the key missions of the SKLMP.

In Chinese mythology, the Spin Kid is a well-known character. When he was young, he was just like many teenagers nowadays, spoilt and rebellious. However, after he found some cool and powerful weapons, he decided to change. He started to help the underprivileged groups, fight against evil and protect justice. Finally, he became a hero in the eyes of Chinese people.



From the view of public safety, marine conservation and environmental protection demands, the promotion of professional diving education can provide teenagers a platform to find their strengths and inner-self to face the continuous challenges ahead. Finally, these ocean lovers would create an excellent army for marine pollution research, marine conservation and public safety. It is expected that these youngsters will pass their passion and responsibilities to others, so as to keep pushing sport diving forward.

With the rise and development of public safety and scientific safety diving training, we believe diving activity, once viewed as a recreation, will gradually be expanded into the areas of marine environmental protection, a new type of vocational skill in a variety of industries and even more, provide opportunities to promote scientific, economic, social and civilizational development.

在开展前沿科研工作的同时，SKLMP 也不忘肩负的社会责任。「哪咤」是中国家喻户晓的神话人物，他像很多时下年轻人一样，被宠坏及叛逆。在找到又酷又炫的风火轮、乾坤圈和混天绫后，他洗心革面，为世间正义打拼，与邪恶力量抗衡，抑强扶弱，维持公义，最终成为中国人眼中的英雄。

从公众安全，海洋保育与环境保护的需求来看，通过专业潜水教育可以为青少年提供一个挥洒青春精力的舞台，帮助他们不停找寻挑战，释放潜藏而惊人的力量，从而为海洋研究培育潜在的优秀生力军。希望青少年的热情与责任感能薪火相传，从而不断推动潜水运动前进。



随着公共安全与科学安全潜水培训的提升与发展，我们相信曾经被视为休闲娱乐的潜水活动，将逐步扩大到海洋环境保护领域以及成为多种行业的一个新型职业技能，促进科学，经济，社会和文明的发展。

### Vision 愿景

To ignite passion for the protection of the marine environment; and the pursuit of interest in the importance of marine science

传播保护海洋环境资源火种      点燃下一代追求海洋科学的兴趣

### Mission 使命

To conduct undersea sampling and carry out investigation in relation to marine ecosystem conservation; and to spread the message of marine environmental protection to the general public

透过水肺潜水进行海底取样和对海洋生态系统保护进行调查; 及宣扬保护海洋环境的讯息

### Previous activities 活动回顾

- \* The Spin Kid Project was established on 21st Sept 2012 with kicking off by the SKLMP Dive Team  
「哪咗」计划已于九月中旬顺利启动，我室「中华潜龙」队亦于九月二十一日正式成立。
- \* Our first research mission was to conduct the “Reef Check” organized by the Agriculture, Fisheries and Conservation Department.  
香港珊瑚普查是「中华潜龙」队的首要任务



\* Regular Open Water Diver Course 定期开放水域潜水员课程



\* A voluntary dive team helped to investigate the impact of plastic pellet pollution in the sea in order to protect the marine coral reef system

潜水队深入海底搜索胶粒 保护自然珊瑚礁生态环境



\* The Spin Kid Project continues the exchange program between the CityU and the School of Environmental Engineering, the Peking University. Students and teachers participated in experiencing scuba diving, giving them opportunities to reflect on how to protect our marine resources

「哪咗」计划承接了我校与北京大学环境科学系学生的交流活动，学生透过浮潜及体验潜水去探索海洋,从思考如何进一步保护我们蔚蓝的海底世界。





## 9. Ocean plus Project 海洋+计划

To catch the strategic opportunity of marine economic development, and bring the unique advantages of the SKLMP into full play, the SKLMP aims to carry out professional diving education through the Ocean+ Project which will nurture amateur marine scientists from the public.

To better explore and protect the ocean, we need to learn more about it. The father of scuba diving, Jacques Cousteau, once said: “The Sea, once it casts its spell, holds one in its net of wonder forever”. Diving is the key for entry to the blue planet, and mankind must respect and abide by the rules of Sea Dweller, for only then can mankind get along with the ocean, attain safety and pleasure, and finally integrate itself as part of the blue planet.

Marine scientists should first complete the process of seeing the ocean by eyes, exploring the ocean by sensors, going into the ocean by boat and diving in the ocean by themselves, and then helping the public to savor the fascination of the underwater through up-close experience. Diving is tending nowadays towards turning the whole diving industry and scuba enthusiasts into the best media for promoting marine science education and raising public awareness of marine conservation and environmental protection. We believe that recreational diving and scientific diving should stimulate one another for mutual development.



为抓住当前海洋经济发展的战略机遇并将SKLMP的独特优势充分发挥，SKLMP计划通过海洋+(海洋家)计划开展专业潜水教育培育市民成为民间海洋科学家。要更好的“经略海洋、保护海洋”，其基础就是认识海洋。



「水肺潜水之父」雅克·库斯托（Jacques Cousteau）曾表示，「海，一旦它开始施法，将使人永远陷于它神奇的网罟之中。」潜水活动是人类进入蓝色星球的钥匙，人类必须尊重及遵守原海居者的规则，才能与海洋和谐相处，才会得到真正的安全及乐趣，最终融入成为其中的一份子。

研究海洋的科学家们应该完成“看海—探海—下海—潜海”的转变，通过近距离的体验，才能帮助市民了解水下世界的魅力。近年来潜水运动日趋普及，而潜水业界及潜水爱好者，是宣传海洋科普教育，提高公众海洋保育和环境保护意识的最佳媒介。我们坚信，休闲潜水和科学潜水应相互促进，共同发展。

Besides, diving is a growing industry and of increasing importance not only in terms of the economic aspect but also for public safety. In a rainstorm which occurred in Shenzhen (30th August 2013) and a drowning incident which occurred in Beijing (21st January 2012), firemen were unable to save victims who were trapped in vehicles because of their lack of specialized underwater training. This revealed the weakness of our country in dealing with underwater accidents and underwater criminal investigations, and the need to develop and promote professional training such as public safety diver and underwater criminal investigators. Such training means a lot to law enforcement agencies and to the community, since public safety divers and underwater criminal investigators usually operate in dangerous environments to save lives, retrieve bodies, recover crime evidence, etc. Promoting such a career with respected duties can also raise the social responsibility and consciousness of citizenship among our next generation. The ultimate target is to spread the oceanic culture to every corner in our society and make every single citizen an “Oceanographer” who loves and respects our ocean.





此外，潜水行业正在蓬勃发展，不仅对经济，对于公共安全也越来越重要。2013年8月30日在深圳发生的一场暴雨和2012年1月21日在北京发生的一起溺水事件，由于缺乏专业水下技能的培训，消防人员束手无策，驾车者被困水中，最终溺水罹难。从而可见我国在水下意外处理及罪案调查方面，力量极之薄弱，亟需推广及发展公共安全潜水员与水下罪案调查员的教育。公共安全潜水员与水下罪案调查员对执法机构和社会大众来说意义非常重要，他们通常在危险的环境中执行任务，肩负着救急扶危、拯救遇溺者及寻回遇难者、为执法人员搜证及将罪犯绳之于法等神圣使命，期望通过推动这种具有使命感的职业，提升年青一代的社会责任感及公民

意识感。最终的目标是将海洋文化传播到社会各阶层，让每一个公民成为热爱海洋、尊重海洋的“海洋家”。





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