

News
Buddy

神十八「魚航員」狀態良好

Shenzhou 18 "Space Fish" is in good condition

原文

摘錄自5月20日香港《文匯報》：5月19日舉行的2024年度「天地共播一粒種——青少年與航天員一起養斑馬魚」科學教育活動上，科學家們介紹了隨神舟十八號飛船進入太空站的「航天魚」最近情況。

中國科學院空間應用工程與技術中心研究員倉懷興表示，太空站小型受控生命生態實驗組件自4月26日由航天員轉移至問天艙生命生態實驗櫃開展實驗以來，已在軌穩定運行了24天，4條斑馬魚目前狀態良好。他還透露了太空站未來的「動物成員」，小鼠以及果蠅將在後續任務中進入太空站。

「天地共播一粒種——青少年與航天員一起養斑馬魚」活動旨在充分發揮太空站科技資源優勢，為青少年搭建科學探究、科學實踐平台，在青少年心中種下科學的「種子」，激勵

廣大青少年追尋「科學夢」「航天夢」。本次活動由中國科學院學部工作局、教育部基礎教育司主辦，中國科學院空間應用工程與技術中心承辦，教育部基礎教育司副司長李海勝、中國科學院學部工作局三級職員周德進出席啟動儀式並致辭。

在啟動儀式上，中國科學院水生生物研究所研究員王高鴻介紹，斑馬魚是一種模式生物，經測定其基因組約有87%跟人類一樣，相似程度較高，在藥物研發等領域都有很好的作用。航天員長期在太空飛行會面臨骨質疏鬆、肌肉萎縮等情況，斑馬魚在這方面是非常好的研究模式，無論是在地面還是太空中都具有很高的研究價值。

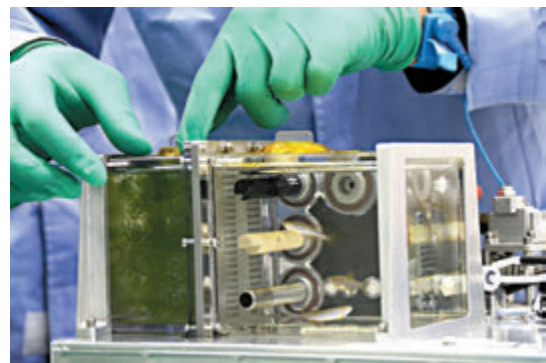
「太空魚缸」太空站小型受控生命生態實驗組件自4月26日由航天員轉移至問天艙生命生態實驗櫃開展實驗以來，已在軌穩定運行了

24天，4條斑馬魚目前狀態良好。

王高鴻表示，目前航天員成功開展了兩次水樣採集和一次魚食盒更換操作，發現了斑馬魚在微重力下表現出腹背顛倒游泳、旋轉運動、轉圈等定向行為異常現象。後續，科學家將利用返回的回收水樣、魚卵等樣品，結合斑馬魚太空運動行為視頻等，開展太空環境對脊椎動物生長發育與行為的影響研究，同時為太空閉閉生態系統物質循環研究提供支撐。

科學家們希望，下一步能在太空利用斑馬魚魚卵培養小魚，從小魚到成魚，從成魚再到產卵，真正實現水生生物在太空的全生命周期培養。

從擬南芥到斑馬魚，中國太空站生命科學領域的實驗已從植物發展到動物。中國科學院空間應用工程與技術中心研究員倉懷興表示，後續的實驗將更加精彩，也會愈來愈有意思。未



◆升空之前的「太空魚缸」。資料圖片

來，科學家們期待將四隻兩雌兩雄小鼠以及果蠅們送往太空站。在太空站，小鼠除可以進行生理性的研究外，還可以將牠們在太空中的活動記錄下來，進行行為心理認知方面的研究，進一步探究腦神經科學等領域問題。

譯文

On May 19, in "Sowing a Seed Together - Youth and Astronauts Raising Zebrafish Together" science education activity, scientists introduced the recent situation of the "space fish" that went to the space station with the Shenzhou-18 spacecraft.

Cang Huaixing, a researcher at the Center for Space Application Engineering and Technology of the Chinese Academy of Sciences, said that the small controlled life-ecology experiment module of the space station has been operating stably in orbit for 24 days since the astronauts transferred it to the Life-ecology Experiment Cabinet of the space capsule on April 26 and started the experiments. The four zebrafish eggs are in good condition now. He also revealed the future "animal members" of the space station, mice and fruit flies, which will enter the station in the following missions.

The "Sowing a Seed Together - Youth and Astronauts Raising Zebrafish Together" activity aims to fully utilize the advantages of the space station's scientific and technological resources to

build a platform for youth to explore and practice science, to plant seeds of science in their hearts, and to motivate them to pursue their "scientific dream" and "space dream". The activity was organized by the Bureau of Academic Departments of the Chinese Academy of Sciences (CAS) and the Department of Basic Education of the Ministry of Education and hosted by the Center for Space Application Engineering and Technology of the CAS. Li Haisheng, deputy director of the Department of Basic Education of the Ministry of Education, and Zhou Dejin, a third-grade staff member of the Bureau of Academic Departments of the Chinese Academy of Sciences, attended the kick-off ceremony and delivered speeches.

At the launching ceremony, Mr. Wang Gaohong, a researcher from the Institute of Aquatic Biology of the CAS, introduced that the zebrafish is a model organism. It has been determined that about 87% of its genome is the same as that of human beings, which is a high degree of similarity and beneficial in drug research and development. The zebrafish is a model organism for as-

tronauts who face osteoporosis and muscle atrophy during long-term space flights, and it is a perfect research model for astronauts both on the ground and in space. The "Space Fishbowl", space station's small controlled life ecology experiment module has been running stably in orbit for 24 days since April 26, when astronauts transferred it to the life ecology experiment cabinet of the space capsule to carry out experiments, and the four zebrafish eggs are in good condition now.

Wang Gaohong said that the astronauts have managed to collect water samples twice and have replaced the fish food box once. They found that the zebrafish were showing directional behavior anomalies, such as inverted swimming and rotary movement, in the microgravity environment on Tiangong. In the future, scientists will make use of the recovered water samples, fish eggs and other samples returned, combined with the video of zebrafish's movement behaviour in space, to research the impact of the space environment on the growth and development of vertebrate animals and their behaviour, and at the same time provide support for the research on the material

cycle of space confined ecosystems. Scientists hope the next step will be using zebrafish eggs in space to cultivate small fish, from small fish to adult fish, and from adult fish to spawning, genuinely realizing the entire life cycle of aquatic organisms in space culture.

From mouse-ear cress to zebrafish, experiments in the field of life sciences on the Chinese space station have developed from plants to animals. Cang Huaixing, a researcher at the Center for Space Application Engineering and Technology Center of the Chinese Academy of Sciences, said that subsequent experiments will be even more exciting and enjoyable. In the future, scientists are looking forward to sending four mice, two females and two males, and fruit flies to the space station. At the space station, the mice will be able to carry out physiological research, record their activities in space for behavioural and psycho-cognitive research, and further investigate issues in the field of brain neuroscience.

◆ 琬琰

九人佔了十一州 一家三口四片地

貼地英文

美國有十一州以人名作為州名，原十三殖民地當中，人名州便佔了八個：

維珍尼亞 (Virginia)

Virginia was named to honour England Queen Elizabeth I. She was aka "The Virgin Queen", 維珍尼亞是為了紀念英國女王伊莉莎白一世來命名，她有一個外號為「童貞女王」。

西維珍尼亞 (West Virginia)

West Virginia have been very an unhappy minority in Virginia. The Civil War provided him a golden opportunity to split from the Virginia and became a separate state, 因為是少數派，西維珍尼亞一直也無奈。美國內戰為他提供了一個從維珍尼亞分州的黃金機會。

特拉華 (Delaware)

An explorer named a river as the Delaware River after the first Virginia Governor Thomas West, Lord De La Warr. Then Delaware took its name from the river. 一位探險家以第一任維珍尼亞首任總督湯馬斯·韋斯特·特拉華勳爵 (Thomas West, Lord De La Warr) 來作一條河之名，叫特拉華河，後來河名又成為特拉華的地方名。

馬利蘭 (Maryland)

Maryland was named to honour the Catholic Queen Henrietta Maria, wife of England's King Charles I. The colony was designated as a safe harbour for Catholics fleeing from England. 馬利蘭的命名是為了紀念信奉天主的亨麗埃塔·瑪麗亞王后，她是英國國王查理一世的妻子，這殖民地是專為逃離英國的天主教徒而設的安全港。

紐約 (New York)

Duke of York was granted the land with a great harbour New York. It was "New" because there was an "old" York back in England". 約克公爵被授予一片連有宏大港口之地叫紐約，它是「新」的，因為英格蘭早有一個「老約克郡」。

賓夕凡尼亞 (Pennsylvania)

Pennsylvania was a compound for "Penn" and "Sylvania". Penn was named after senior William Penn. The "sylvania" is a Latin suffix for forest. 賓夕凡尼亞

是把「Penn」和「Sylvania」複合而成的詞。「Penn」是 senior William Penn (老威廉·佩恩) 的姓，「sylvania」是拉丁文的森林。

卡羅萊納 (Carolina)

Carolina was to honour the colony granter King Charles II of England. 卡羅萊納州是為了紀念授讓殖民地的英國國王查理二世。

南、北卡羅萊納州 (South and North Carolina)

The Government in the north of Carolina is too far to serve the south of Carolina. Eventually, they went separately and created the South and the North Carolina. 卡羅萊納北部的政府距離卡羅萊納南部太遠，無法照顧南部居民。最終，他們分別建立了南北卡羅萊納。

路易斯安那 (Louisiana)

A French explorer named the land La Louisiane after King Louis XIV of France. This French King was also called the Sun King. 一位法國探險家以法國國王路易十四的名字命名了這片叫 La Louisiane 的土地，這位法王更有太陽王的美名。

喬治亞 (Georgia)

Georgia colony was named after the granter. That's King George II. 喬治亞殖民地是以授讓人為名，這授讓人正是英王喬治二世。

華盛頓州 (Washington) 及華盛頓哥倫比亞特區 (Washington, the District of Columbia)

Washington State is to commemorate the first US President George Washington. Washington, DC as a federal city was built to honour George Washington. The formal name for DC is the District of Columbia.

哥倫比亞特區之下曾有兩個城，華盛頓城之外還有個喬治城 (Georgetown)，早已存在的喬治城則和這首任總統無關。後來喬治城併入華盛頓城後，美國首府之下只有華盛頓城，也造出城和首都二合為一的結果。華盛頓州在西，而華盛頓首府則在東。

下一篇一起來看看，這些州名中別樣的情懷。

◆ 康源 專業英語導師

神話經變換 刑天淪瘟神

恒
大
清
思

年前筆者在本欄嘗試從歷史角度切入，闡述刑天的原型很可能來自遠古原始部落的領袖。逝者已矣，刑天一名竟然跨越時間長河流傳至今，顯然是得益於神話傳說的推波助瀾。

先民很早已經採用神話方式，傳頌刑天的英勇事跡。先秦古籍《山海經》載刑天因「與帝爭神」，惜敗而被「帝斷其首」，遂「以乳為目，以臍為口，操干戚以舞」。刑天半人半神的姿態於書中活靈活現，反映他曾備受族民尊崇。那麼為何受萬民景仰的刑天，終卻淪變成後人避之則吉的瘟神，便要追溯刑天神話傳說的流傳軌跡。

相傳《山海經》由巫師及方士編撰，內容多為神異傳說。魏晉時期道術思想流行，士人多好仙家傳說，自然愛讀《山海經》一書。晉人郭璞便於其著作《山海經圖贊》中說：「爭神不勝，為帝所戮，遂厥形天，臍口乳目。仍揮干戚，雖化不服」，神格化的刑天躍然紙上。時代相約的詩人陶潛，拜讀《山海經》一書後，有感刑天的不屈鬥志令人佩服，故寫下流傳千古的名句「刑天舞干戚，猛志固常在」。

唐代起刑天形象漸趨負面

不過自唐代始，刑天漸漸沾染上貶義色彩。唐人顏師古撰《等慈寺碑》時提到「念刑天之魂，久淪長夜」，轉為化用刑天敗者為寇的悲劇形象，代指唐太宗所平定的隋末軍事割據力量。

明代士人王世貞於《弇州四部稿》更寫到，刑天死後化成食人之獸，「下隸隸兮嚼齊民」，將刑天妖魔化為叛亂者的代稱。

故此明清以後，刑天的負面形象更為深入人心。清人范承謨《武彝曲》寫有「天吳欲沸刑天舞」句，以「刑天舞」指代康熙年間發生的「三藩之亂」。而小說《封



◆ 清代皮影戲中的刑天。

網上圖片

神演義》中法力高強的「瘟神」呂岳，有一法器名為「刑天印」，又名「列瘟印」，刑天遂與瘟疫連上關係。清人袁枚於詩作《瘧》中更將刑天與瘧疾扣連一起，從此刑天成為眾人耳熟能詳的瘟神。

觀察刑天形象的演變軌跡，印證神話與歷史有著密不可分的關係。上古時代族群領袖地位超然，魏晉士人亦好求仙問道，刑天自然成為受人膜拜的圖騰。

後來，隨着王朝更迭不斷，亂臣賊子不時出現，刑天的悲壯遭遇便被轉化為敗者或叛者的象徵，甚至被妖魔化為邪物。

神話作為社會大眾意識形態的反映，作家會因應時代需要塑造刑天不同的形象，而刑天亦有賴上述這些文學意象，得以代代相傳。

至此，我們明白科幻電影《明日戰記》選用刑天一名，作為其中一台戰力驚人的反派機械人的名字，確有其理。至於另一台機械人又為何命名為「窮奇」，下次另文再與各位讀者一起討論。

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