



吉娃斯愛科學繪本

第03集  
飛魚的夜曆

阿美族語  
(秀姑巒阿美語)

翻譯 / 配音  
Kolas Foting  
(朱清義)

# 吉娃斯愛科學

第03集 飛魚的夜曆

## 阿美族語 (秀姑巒阿美語)



族語全文朗讀



華語全文朗讀



英語全文朗讀



吉娃斯

Kolas

飛奔

Mayaw

乃奈

Namoh

里昂

Ci Lisaw



O koyomi^ no kakahong



飛魚的夜曆



The Flying Fish Calendar

慢

原







Maraod to ko kacikakahongan!



飛魚季來了!



The flying fish season has arrived!







Yo maraod to ko pikakahongan i, o dadaya^ ko sakatalariyar no i Fotoday a tamdaw a mikakahong.



每到飛魚季，達悟族人就要在夜間出海夜捕飛魚。



Every year during the flying fish season, Tao people go out to sea at night to catch flying fish.

慢

原









To dadaya^, oya hali'edilay a kakahong, paka'araw to likat haw i.



在夜色裡，趨光性的飛魚看到拼板舟上的火光。

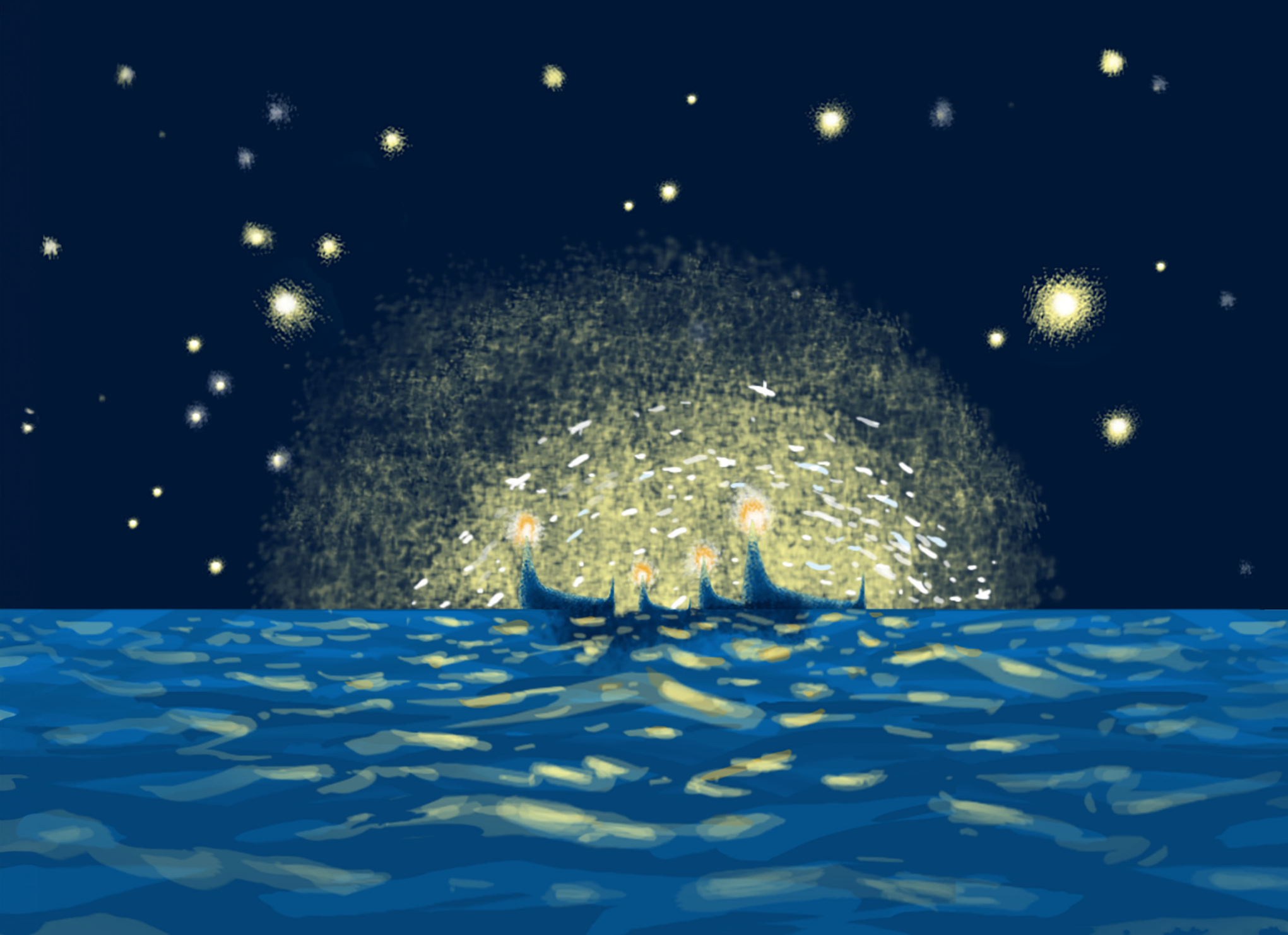


In the dark of the night, flying fish are attracted to the light of torches on tatala boats.

慢

原







Safeleng sa a maefer, pasayra toya likat.



數以百計的飛魚就會展開胸鰭在海面滑翔。



Hundreds of flying fish open their pectoral fins and glide above the surface of the ocean.

慢

原







Tangasa^ i kanikaran to dafak ta patatiko^ a minokay cangra.



一直到天快亮了, 他們才會返航。



The fishermen only return to the shore when dawn approaches.

慢

原







Ci Masa^ sato i, mara:tar a tayra i lawac no riyar, mitala^ to nikasefek no mama^ a minokay.



si Masagaz 很早很早就在海邊等著出海的父親滿載而歸。



si Masagaz wakes up really early to go to the beach to await his father' s return with a full catch.









O rayray no i Fotoday a finacadan, yo masofoc ci Masa^ i, somaden no mama^ ningra ko ngangan to syaman Masa^, o imi^ nonini haw i, o mama^ ni Masa^ sanay.



依照達悟族人的傳統，si Masagaz 的父親在他出生後就改名為 syaman Masagaz，意思是 Masagaz 的父親。



According to Tao traditions, when si Masagaz was born, his father's name became Syaman Masagaz, which means the father of Masagaz.

慢

原







Oya maalaay a kakahong i, tangsolen a misongila', licikafen ato litinayi'en, ta manga'ay a 'id'iden a mi'icang.



捕上岸的飛魚要迅速處理，還要去除魚鱗和內臟，方便之後做成魚乾。



The flying fish caught by the fishermen must be processed quickly after reaching shore, removing the scales and organs in order to dry the fish.

慢

原







Mangata^ to i faled no tangal ko cidal ta tayra i lawac no riyar ci Kolas aci Lisaw a mipadang.



直到太陽快到頭頂時，吉娃斯和里昂才到海邊幫忙。



Giwas and Leon don' t arrive at the beach to help until the sun is high in the sky.

慢

原







Patorod han ni Masa^ ci Kolas to cecay no fafahian a kakahong, malo sapiaray to pidama^ ningra.



si Masagaz 送給吉娃斯一條女人魚，感謝她的幫忙。



si Masagaz gives Giwas a women' s fish to thank her for her help.

慢

原









Palatolo^ han no i Fotoday a finacadan ko pisiroma^ to kakahong—o no fa'inayan a kakahong, o no fafahian a kakahong, ato no mato'asay a kakahong. O no fafahian a kakahong i, o sakaeso'ay a foting, o sapakaen to fafahian ato wawa^.



達悟族人把魚分成男人魚、女人魚和老人魚三種。女人魚是最好吃的一種魚，所以留給女人和小孩們吃。



The Tao people split fish into three categories: men' s fish, women' s fish, and elder' s fish. Women' s fish are the most delicious, so they are saved for women and children to eat.

慢

原







Songila'en ni Kolas a mi'anang konini a foting, o malo sapatayra i taykung-can a palada' i ci Mayawan.



吉娃斯想把這條魚好好保存，以便帶到太空站與飛卉分享。該怎麼做呢？



Giwas wants to preserve the fish so she can take it to the space station to share with Behuy. How can she do that?







Maharateng ni Lisaw koya mananamay ningra a fana' yo mipasiket to faelohay a sakicial a cidaf i tay-kung-can.

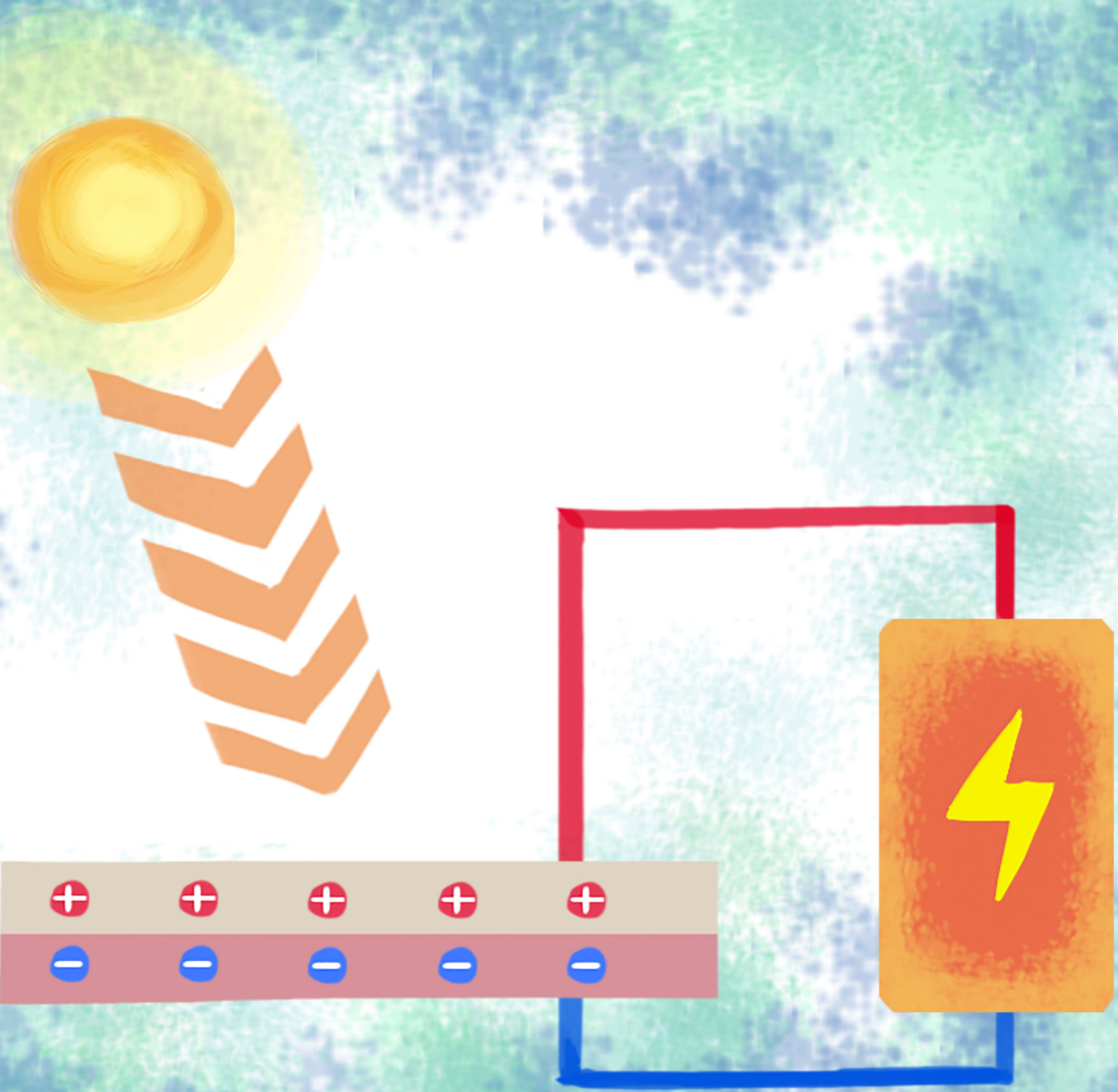


里昂想起上次太空站安裝新的太陽能板所學習到的知識。



Leon recalls what they learned when the space station installed new solar panels.







Yo maherek ko kalolakaw a mihedot to rafor no likat i, mipadadak to dingki^, onini haw i, o “kwang-tyen-syaw-ing” han ko سوال. O pakayniay i pihedot to rafor no likat no cidal ta cidingki^ sanay a lalosidan koya sakicial a cidaf.



物質吸收光子後放出電子的現象叫做「光電效應」。太陽能板就是利用太陽光的光子產生電力的一種工具。



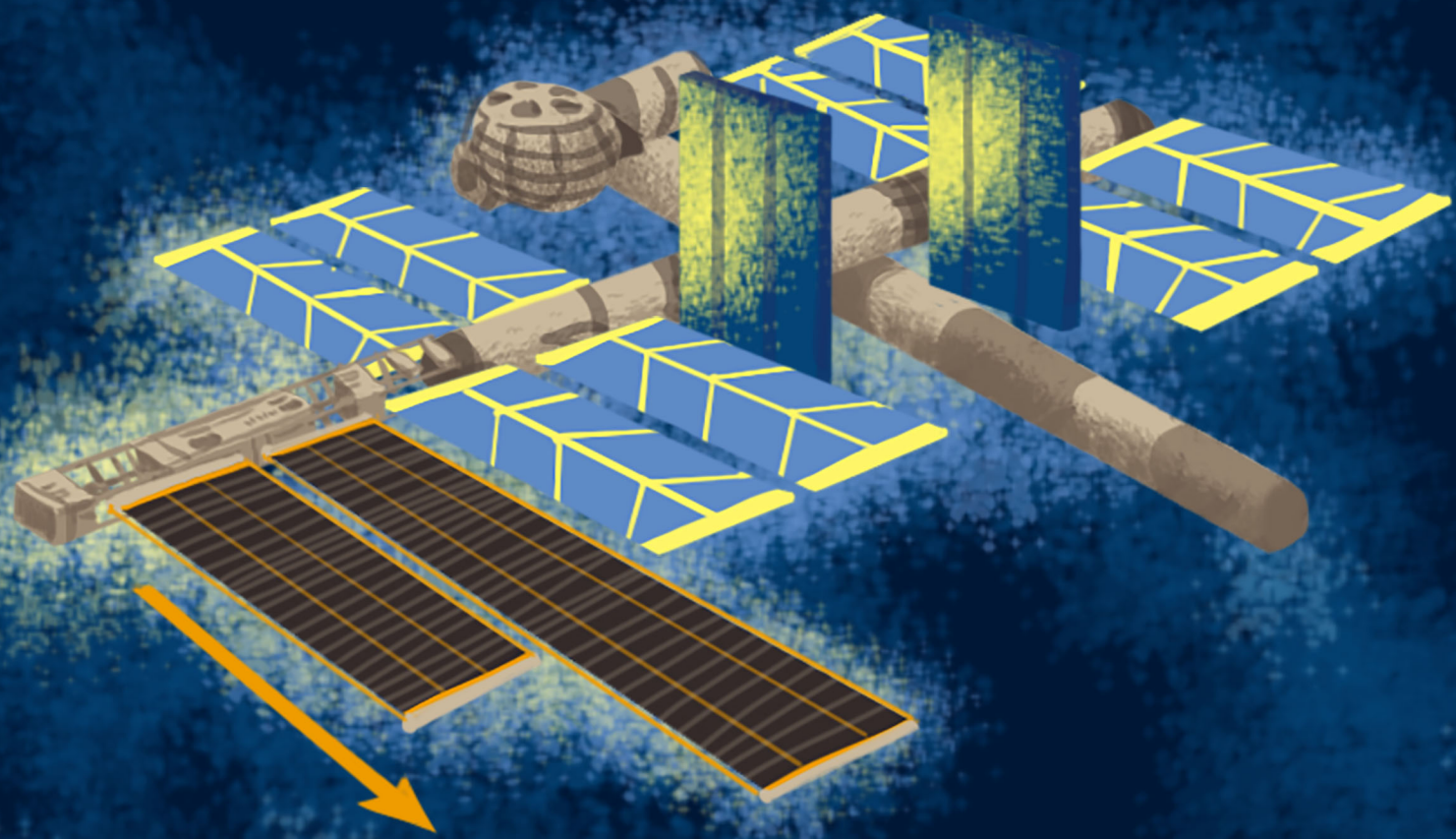
The phenomenon where a substance emits electrons after absorbing photons is called the “photoelectric effect.” A solar panel is a tool that uses the photons of sunlight to generate electricity.

慢

原









Ona faelohay a sakicial a cidaf ato ya lolodananay a cidaf i, kahemaw ri caay picalat to pitelian, caloway ko pisolot to faedet no cidal.



新型的太陽能板甚至是捲動式的，更輕更不佔空間，更能有效利用太陽能。



A new type of solar panels can even be rolled up. They are lighter and take up less space so they can more effectively capture solar energy.







Masafaloco' ni Kolas aci Lisaw, pakayni i likat ato faedet no cidal a mi'icang to foting, ta manga'ay hakiwiden nangra a patayra i tay-kung-can.



吉娃斯和里昂想到，他們也可以好好利用太陽的光和熱，把魚曬乾，就可以帶到太空站了。



Giwas and Leon remembered that they can utilize the light and heat of the sun' s energy to dry the fish so they can take it to the space station.

慢

原







Nika hacowa^ ka halafin ko pipawali^ hakini?



可是到底要曬多久呢？



But, how long does it take to dry a fish in the sun?







Matepa^ sato koya mikiliman a ta'akay a fakeloh i, nika سوال sa ci Masa^,  
“Caay haenen ko pipawali^ a mi'icang!” saan.



好不容易才找到的大石頭，si Masagaz 卻說，魚不是這樣曬的。



They finally found a big enough stone to place the fish, but si Masagaz said  
that' s not how to sun dry a fish.

慢

原









Mata'elif to ko cecay li'an no mihecaan ko fana' no i Fotoday a finacadan a mipawali^ to kakahong. Oya masongila'ay to a kakahong i, cilahen. Kitata'akan no tomesekay a 'icel no cilah ko no kakahong, saka narikay a ma'icang.



達悟族人曬飛魚已經有不只一百年的歷史。處理好的飛魚抹上粗鹽，利用鹽的滲透壓大於飛魚的滲透壓，可以讓飛魚乾得更快。



Tao people have been drying flying fish in the sun for over a hundred years. Once they have prepared the fish, they cover it with coarse salt. The osmotic pressure of salt is greater than that of the fish, so this makes the fish dry even faster.

慢

原







O makakafitay to kakahong ko pinangan no 'orip no i Fotoday a finacadan, halo koyomi^ nangra a mido^do^ to kacikakahongan a romi'ad.



達悟族人的生活與飛魚密切相關，就連曆法也都是照著飛魚的汛期來作息。



The lives of the Tao people are closely connected with flying fish, so even their calendar and periods of work and rest are determined by the flying fish season.

慢

原



RAYON  
MIVANWA  
召魚祭



四月





I kacanglahan ko Rayon (o pikakahongan a lisin o sanay), mali'ayaw ko i Fotoday a palowad to Mivanwa (piang^angan to kakahong a lisin o sanay), ikor to i, misatapang to cangra a mikakahong to dadaya^, tangasa^ i sakasepat a folad ta manga'ay a mifoting to dafak.



春天的時候，是 Rayon（飛魚季），達悟族會先舉行 Mivanwa（招魚祭）召請飛魚來，然後就開始了夜捕飛魚，一直到四月才可以在白天捕魚。



During the spring, it is Rayon (flying fish season) and the Tao people hold Mivanwa (the fish festival) to invite the arrival of the flying fish. Then, they begin to catch flying fish at night until April when they can resume fishing during the day.

慢

原



ТЕУТЕУКА





I sakalima<sup>^</sup> tangasa<sup>^</sup> i sakafalo<sup>^</sup> a folad nani pisatapang no Rayon i, o teytoyka (talariyar a mifoting o sanay), ona romi'ad i, dengan o roma<sup>^</sup> a foting ko alaen, o pipahanhanan a pawawa<sup>^</sup> to kakahong.



Rayon 開始後的第五個月到第八個月是 teytoyka (海上魚撈的季節)，這個時候只能捕捉飛魚以外的魚種，讓飛魚休養生息。



From the fifth to the eighth months after the start of Rayon, it is Teytoyka (the season of fishing on the ocean). During this time, they can only catch fish other than flying fish to give flying fish a chance to recover.

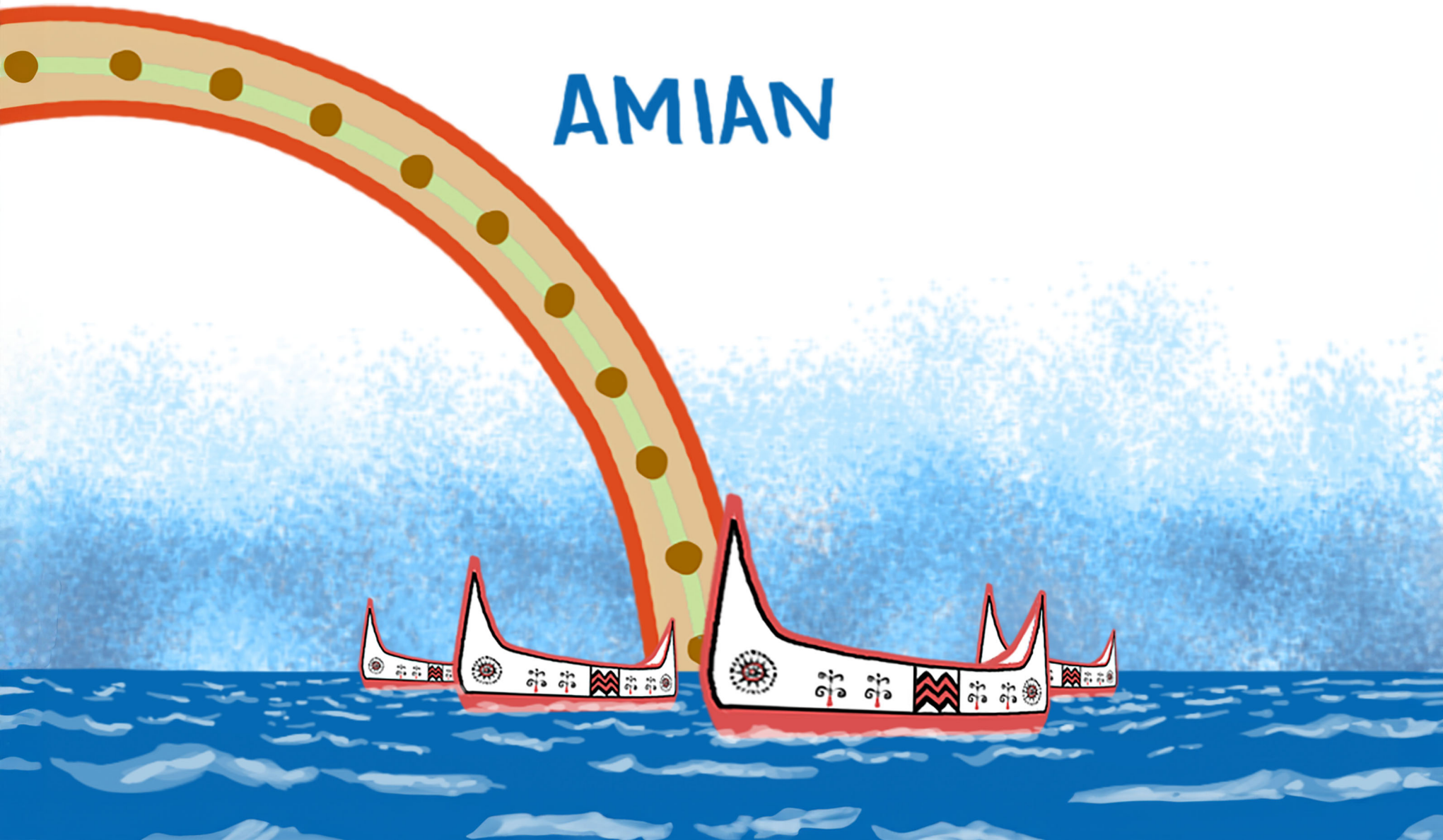
慢

原





AMIAN





Nani sakasiwa^ a folad a misatapang, o amian (o pitalaan to kakahong a romi'ad o sanay), milekakawa^ ko i Fotoday to “Manoyotoyon” (pipaherekan a komaen to kakahong o sanay); nanoya a romi'ad, caay to ka komaen to kakahong, matira ta ira ko lalitoden to no roma^ a mihecaan.



第九個月開始是 amian (等待飛魚的季節)，達悟族人會舉辦 Manoyotoyon (飛魚終食祭)，從這時開始，連飛魚乾也都不能吃了，這樣明年才會有更好的豐收。



Starting with the ninth month, it is Amian (the season of waiting for flying fish). The Tao people hold the Manoyotoyon (festival of finishing the flying fish). From this point on, they cannot eat anymore dried flying fish to ensure that they will have another full harvest in the coming year.

慢

原



RAYON  
MIYVANWA  
召魚祭



TEYTEYKA  
夏天



MANOYOTOYON  
飛魚終食節





O “koyomi^ no kakahong” no i Fotoday konini.



這就是達悟族「飛魚的夜曆」。



This is the Tao people’ s “Flying Fish Calendar.”

慢

原







Ano maherek to a mi'id'id to kakahong ci Masa^ i, manga'ay to a mihakiwid to sapakaen i ci Mayawan; ka inian o no fafahian a foting ko li'ayawen a micacak!



等到si Masagaz 把飛魚乾曬好, 就可以帶飛魚乾給飛卉吃, 這條女人魚就先煮湯吃了吧!



When si Masagaz is finished drying his flying fish in the sun, they can bring the dried flying fish to Behuy at the space station. But, it's best to make fish soup with this women's fish now!

慢

原







Maherek to ci Maya^ a patado^ a misakohaw to kakahong.



si Mazngang 替大家煮好魚湯。



si Mazngang makes a fish soup for everyone.









Tada 'aredet ko kohaw no kakahong!



新鮮的魚湯真是太好喝了！

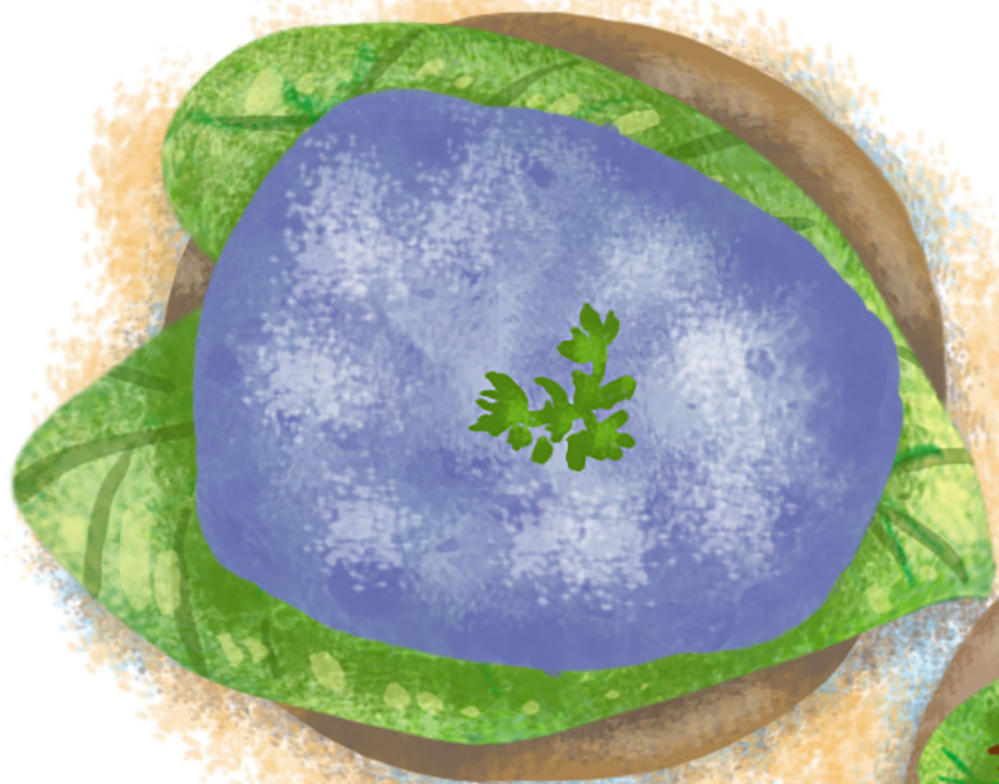


The fresh fish soup is so delicious!

慢

原







Sawal sa ci Maya^, caay ko dengan o kohaw no kakahong ko kafana'an ako a micacak, o misa'emoan to tali^ ato nietiman a kalang ko roma^ saan.



si Mazngang 說她的拿手料理除了魚湯，還有芋頭糕和蒸陸蟹。

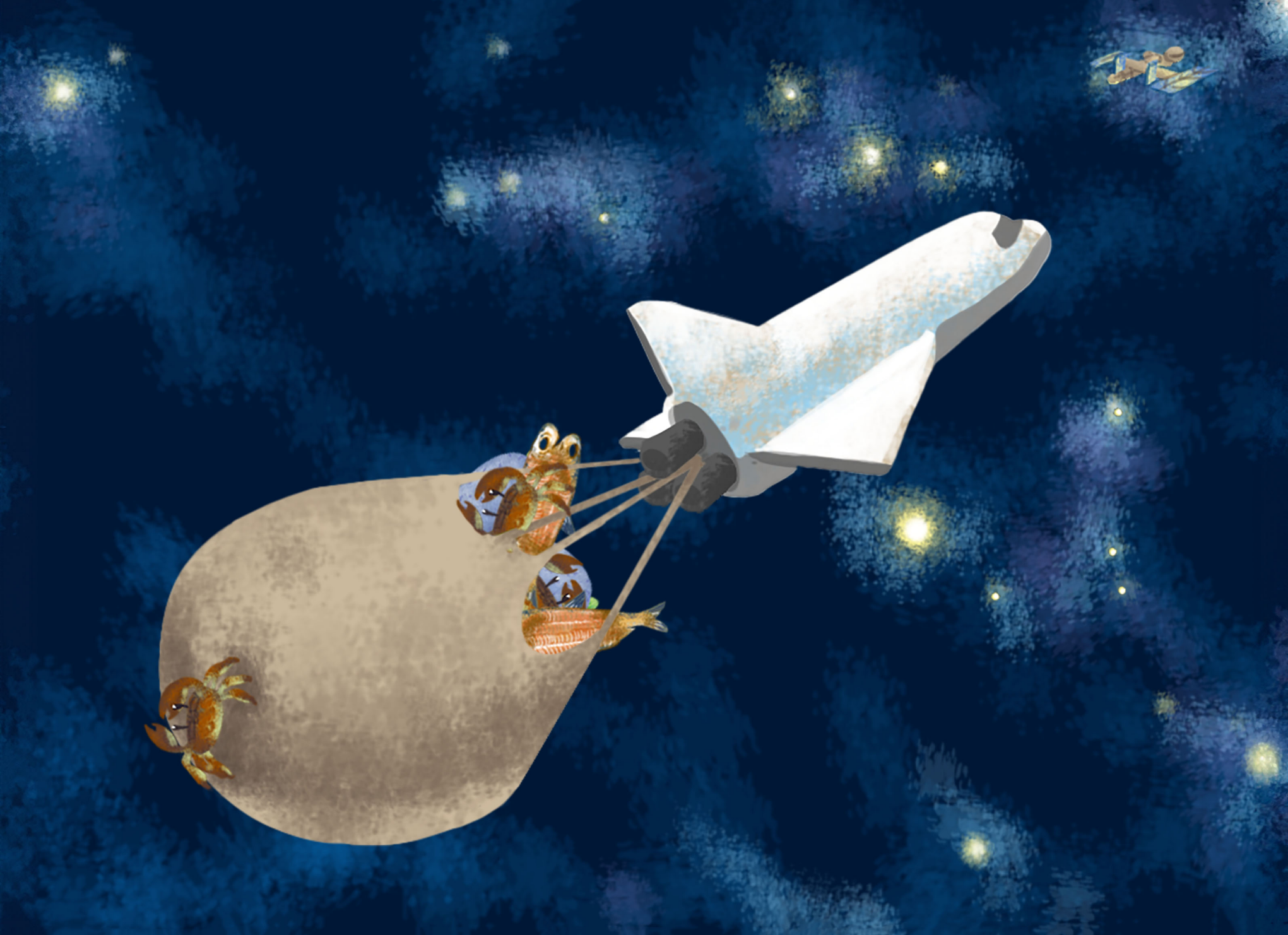


si Mazngang says in addition to fish soup, her specialties also include mashed taro and steamed crab.

慢

原







Eminen ako a minanam konini sa ci Kolas; mangalay cingra a mihawikid a patayra i tay-kung-can to kakaenen no i Fotoday a finacadan, pafoceki^ a pakaen i ci Mayawan!



吉娃斯要全部學起來，她要把達悟族的美食通通帶回太空站，讓飛奔吃得肚子鼓起來像是一座小山！



Giwas wants to learn how to make all of those things to bring Tao culinary traditions back to the space station so Behuy can eat so much delicious food his belly sticks out!

慢

原



一般單詞

中文 詞性 族語

飛魚季 名詞 kacikakahongan

飛魚 名詞 kakahong

返航 動詞 patatiko^ a minokay

傳統 名詞 rayray

魚鱗 名詞 cikaf

頭頂 名詞 i faled no tangal

保存 動詞 mi'anang

安裝 動詞 mipasiket

曬乾 動詞 mi'icang

汛期 名詞 kacikakahongan

招魚祭 名詞 piang^angan to kakahong a lisiin

新鮮的 形容詞 'aredet

芋頭糕 名詞 misa'emoan to tali^

鼓起來 動詞 pafoceki^

中文	詞性	族語
趨光性	名詞	hali'edilay
滑翔	動詞	maefer
太陽能板	名詞	sakicial a cidaf
物質	名詞	kalolakaw
光子	名詞	rafor no likat
光電效應	名詞	kwang-tyen-syaw-ing
滲透壓	名詞	tomesekay a 'icel

科學單詞



# 吉娃斯愛科學 阿美族語 (秀姑巒阿美語)

## 第03集 飛魚的夜曆

補助單位一 教育部國教署 (繪本紙本製作與族語翻譯配音)  
計畫名稱 「發現天生科學家：原住民族文化科學學習實踐與發展十年計畫」 (第二階段第二年)

補助單位二 國家科學及技術委員會 (繪本繪圖製作)  
計畫名稱 「吉娃斯愛科學IV：太空站部落」

計畫主持人 傅麗玉  
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族語配音 Kolas Foting (朱清義)  
族語翻譯審查 Eyko Angay (張月瑛)

英語翻譯 Joelle Chevrier (蔡雪青)  
英語配音 Barton Steven Grant  
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