

SEAFDEC AQD Matters

In-house newsletter of the SEAFDEC Aquaculture Department, Tigbauan, Iloilo

Aquaculture nutrition online offered anew

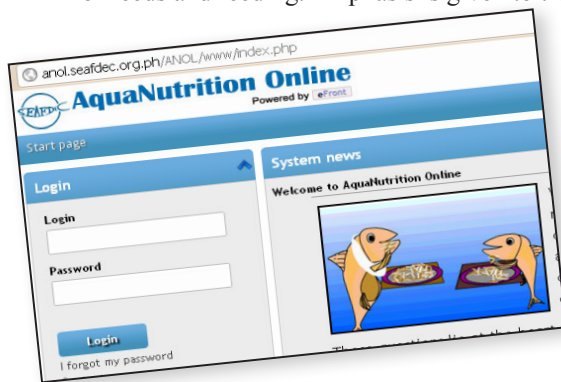
AQD offered anew its online training course on *Aquaculture nutrition* that will run for 4 months beginning 21 March.

Ten participants from Brunei, Cambodia, Indonesia (2), Myanmar, Thailand, Malaysia, Guyana and Philippines (2) are currently enrolled.

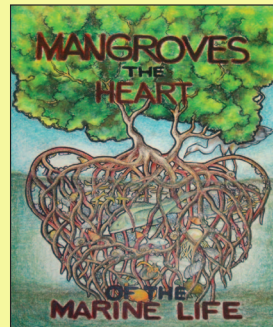
The course aims to provide e-learners with technical knowledge and skills in aquaculture nutrition and feeding.

AQD has updated the content and delivery of the course which was last offered in 2002 and 2003. It covers these subject matter: (a) nutrient requirements and effects of nutrient deficiencies on aquatic species; (b) feeding behavior, digestive physiology and digestibility; (c) aquafeed formulation, processing, and evaluation; and (d) management & economics of feeds and feeding. Emphasis is given to tropical species like milkfish, tilapia, tiger shrimp, and other species of commercial importance.

Aspects of feeds and feeding related to the conservation of the aquatic environment are also dealt with.



Off to Bangkok they go!



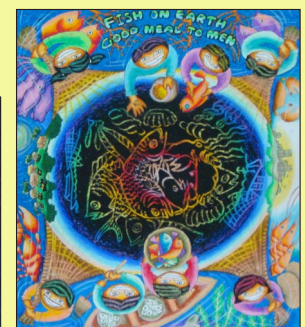
Everything in nature is a web (pastel)
by Ms. Jann Martine Esperancilla, 13 yrs old
Assumption-Iloilo, Iloilo City



Global fishing (acrylic)
by Ms. Aubrey Beatrice Carnaje, 10 yrs old
SPED-Integrated School for Exceptional Children, Iloilo City



Protecting aquatic resources (pastel)
by Ms. Mariela Quipid, 12 yrs old
Ramon Magsaysay High School, España, Manila



Fish on earth, good meal to men (pastel)
by Ms. Laurice Anne Lima, 11 yrs old
Graciano Lopez Jaena Elementary School, Iloilo City

Four paintings by schoolchildren aged 10-13 years are the Philippine entries to the drawing contest organized by ASEAN-SEAFDEC this year. They won over 103 entries from 41 schools all over the country. The paintings will be exhibited in Bangkok, Thailand from 13 to 17 June during the *Conference on sustainable fisheries for food security towards 2020*, also organized by ASEAN-SEAFDEC [See full story on pages 7-10.]

AQD participates in JTF meeting

AQD Chief Dr. Joebert Toledo, along with Deputy Chief Dr. Teruo Azuma (photo at right) and Special Departmental Coordinator Ms. Belen Acosta, attended the *Meeting on SEAFDEC-Japanese Trust Fund (JTF) program review for 2010 and onwards* on 24-25 February in Bangkok, Thailand.

The meeting discussed the implementation by SEAFDEC departments of their respective JTF-II and JTF-V programs.

Representatives of SEAFDEC Secretariat and the departments attended.



B. ACOSTA

BFAR-RFTC training series begins

For three weeks beginning 29 March, AQD is conducting the *Training of trainers on abalone hatchery and grow-out* with 21 technical staff of BFAR's regional fisheries training centers (RFTC-Albay, Aparri, Cebu, Davao, Palawan, Samar, Zamboanga) in attendance.

This is the first of a series of five courses aimed at enhancing and strengthening the capacity & capability of RFTCs to effectively transfer relevant technology on high-

value marine species to their stakeholders.

Training topics include abalone biology & seed production, feeds & feeding, grow-out culture, biology & culture of seaweeds, and financial feasibility & market potential. In addition, the participants visited AQD's research stations in Igang and Dumangas.

Ms. Jerlinda Cruz, the class representative, thanked AQD resource speakers for sharing their expertise, assuring

them that she and her co-participants will use the course as a guide in implementing aquaculture programs in their respective areas.

Prior to the training, AQD was invited to the *2012 Budget preparation workshop of BFAR* on 22-25 February in Tuguegarao City. During the workshop, AQD's training & information head Mr. RF Agbayani presented the mechanics of the RFTC capacity building project worked out in last year's November and December meetings with BFAR and RFTC regional directors. AQD's research head Dr. Evelyn Grace Ayson, on the other hand, presented the proposed budgetary requirement for the biotech laboratory facilities.

L-R: Trainees count diatoms, prepare settlement plates for the abalone larvae and select mature abalone broodstock for spawning



Courses on freshwater aqua

Seven trainees from Cambodia, Indonesia, Malaysia, and the Philippines (4) participated in the *Special training on freshwater prawn hatchery and grow-out operations* from 21 March to 1 April at AQD's Binangonan Freshwater Station.

The training was funded by the Government of Japan Trust Fund (GOJ-TF), and had lectures and practical sessions on site selection & water quality management; design & construction of pens, ponds & cages; natural food production; broodstock selection; prawn health management; monitoring of larval stages; grow-out operations; and aquaculture economics.



Trainees count the number of freshwater prawn postlarvae (left) and students try their hand at making a net for cages

The trainees also went on a field trip to NIFTDC (National Integrated Fisheries Technology Development Center) in Dagupan, Pangasinan.

Moreover, a *Special training on fish culture management* was held on 21-23 February which was attended by 31 scholars of the Meralco Foundation Institute (MFI).

Among the topics covered were water quality management, laboratory culture techniques, fish health management, netmaking for cages, and fish nutrition & feed preparation.

Consequently, negotiations between AQD and MFI are underway to establish a MOA for making this activity into a regular training course for MFI students. - JD DEAUNA



Trainees on freshwater prawn with AQD Deputy Chief Dr. Teruo Azuma (standing 4th from left) and AQD resource persons & technical staff. Dr. Azuma graced the opening ceremony and lectured on climate change and its impact on fisheries & aquaculture

AQD assists three communities

AQD helped three communities through its *Institutional capacity development for sustainable aquaculture* (ICDSA) and training programs.

Cooperative

The *Lunsad multi-purpose cooperative* (LMPC) in Binangonan, Rizal sought AQD's assistance in providing alternative livelihood to its members through the ICDSA program.

As preparation for the project, a two-day training on the grow-out culture of giant freshwater prawn was conducted at AQD's Binangonan Freshwater Station (BFS).

Initial stocking of giant freshwater prawn postlarvae was done in mid-December 2010 using twenty units of 5 x 10 x 1 m B-net lake-based cages.



JD DEAUNA



Stocking of giant freshwater prawn in LMPC cages (top); participants weigh milkfish samples (middle); and Mr. Vincent Encena (rightmost) shows abalone stocks at IMS (left)

BFS technical staff also monitors the water quality of the cages and samples stocks to determine growth & survival and feed ration.

People's organization

On 25 February, AQD conducted a training on milkfish culture in floating cages at its Igang Marine Station (IMS) for the members of *Katilingban sang magagmay nga mangingisda sa Dolores* (KAMAMADO), a people's organization in Nueva Valencia, Guimaras.

AQD specialist Mr. Albert Gaitan lectured on stock sampling & feed adjustment and milkfish culture in cages, pens & ponds.

The Zoological Society of London facilitated the training course while the local government unit of Nueva Valencia funded the activity.

Local government unit

AQD facilitated a seminar-workshop on *Aquaculture technologies for livelihood* for 50 staff of Cadiz City local government from 23 to 25 February at AQD's Tigbauan Main Station and at IMS. This was organized with the German Development Service.

AQD specialists Dr. Fe Dolores Estepa, Dr. Junemie Hazel Lebata-Ramos, Mr. Albert Gaitan, Ms. Dianne Hope Tormon & Mr. Vincent Encena; and AQD technical assistant Ms. Hananiah Sollesta were invited, respectively, to give lectures on (1) mudcrab hatchery, nursery & grow-out; (2) stock enhancement of important species such as seahorse, giant clam & sea cucumber; (3) cage culture of milkfish and other high-value species; (4) financial analysis of selected aquaculture species; (5) abalone culture; and (6) seaweeds farming.

AQD attends AQUATECH 2011...

AQD presented to the public its aquaculture technologies through a booth at the *2011 AQUATECH Expo & convention* which was held 23-25 March in Clark Field, Pampanga.

Also at the expo, AQD scientist Dr. Ma. Rowena Eguia talked on genetic improvement for enhanced productivity in aquaculture and AQD's Igang Marine Station head Mr. Albert Gaitan discussed cage culture of high-value marine fish.

The event was aired during the 17 April segment of NBN-4's program *Mag-agri tayo*. Dr. Eguia also guested on the television show *Good morning kuya* of UNTV on 14 March to promote the expo; this interview with Dr. Eguia can be viewed at www.untvweb.com/en/videos/good_morning_kuya.html#video=1236.



MRR EGUIA

...and aquaculture consultation

AQD scientist Dr. Ma. Lourdes Aralar attended the *Consultation for animal husbandry, beekeeping, and aquaculture* organized by the

Organic Certification Center of the Philippines (OCCP) on 7-9 March in Quezon City.

The consultation discussed the provision for organic

husbandry, beekeeping and aquaculture. For aquaculture, it was noted that milkfish is the commodity whose production systems may be certified as organic.



AQD research head Dr. Evelyn Grace Ayson (leftmost) tours the Yulin delegates at sandfish hatchery



AQD fish health section head Dr. Edgar Amar explains the procedures in detecting parasites in seabass fingerlings to the crew of GMA-Iloilo

AQD welcomes guests

Delegates from Yulin, China

Seeking collaboration with AQD, delegates from Yulin, China came to visit on 3 March to see AQD's work on abalone and seahorses (both important ingredients in traditional Chinese medicine). They were Mr. Jiang Gui Cheng (Vice Mayor of Yulin City), Mr. Huang Ge (Director Yulin Foreign Affairs Office) and Mr. Chen Zhong Qiu (Director of Yuzhou Local Tax Bureau).

Local media

Equipped with their cameras and creativity, the TV crew of GMA-Iloilo visited AQD on 1 February to film its facilities and commodities.

Special thanks to AQD officials, program leaders, and technical assistants for sharing their time and patiently explaining their work.

DLSU-Manila students

Six students from De la Salle University (DLSU) in Manila who are taking up master's degree in biology toured BFS laboratories and hatcheries on 18 February. They wanted to see how research is conducted in a field setting. The students were accompanied by their professor Dr. Ma. Carmen Lagman.



The video footages on abalone and mudcrab seed production and electron microscope were featured in GMA-Iloilo's *Arangkada* program on 7, 8, and 19 February, respectively. The videos can be viewed at <http://www.youtube.com/user/arangkadailoilo>

Team empowerment

To ensure the effectiveness of the implementation of its policies and benefits to employees, AQD held an *Organization and policy orientation* on 1 February for

18 of its Binangonan Freshwater Station (BFS) and Manila Office staff.

The orientation covered

AQD's mission, vision & objectives; organizational structure and section/division functions; personnel conduct & discipline; and statutory benefits.

To further develop teamwork among employees, an echo-seminar on *Team empowerment* was also conducted on 2 February by AQD's Human Resources Management Section.

The topics included professionalism and workshops on identifying the positive & negative working cultures of the institution as well as identifying employee habits that need to be addressed to improve productivity.



SM BONITILLO

AQD's administration & finance head Ms. Renee Valencia orient the participants about AQD's organizational structure and policies

Research seminar



Dr. Fahrul Huyop, from the Universiti Teknologi Malaysia, discussed his study titled *Environmental microbiology: microbial pollutant degraders (past, present and future)* on 3 February.

Dr. Huyop first isolated bacterial species from soil that can grow on halogenated

compounds. Then, he identified the bacteria using biotech tools (16S rRNA) before isolating and identifying the dehalogenase gene using known primers. He did homology modeling and protein structural predictions or site-directed mutagenesis using

dehalogenase D and E that were isolated from *Rhizobium* sp.

His results show that *Rhizobium* sp. can be used to breakdown halogenated compounds coming from environmental pollutants such as insecticides, pesticides and herbicides.



Captain Gert Heynes, Squadron Commander of the Coast Guard Auxillary - Western Visayas Squadron 605, imparted to AQD staff the basic principles of scuba diving on 7 February.

He discussed water pressure and buoyancy and their importance during diving. He also shared the requirements on how to get a diver's certificate from renowned diving

organizations such as the World Confederation of Underwater Activities (CMAS) and the Professional Association of Diving Instructors (PADI).



Dr. Keita Furukawa from the National Institute for Land and Infrastructure Management (Japan) presented on 8 March his study on *Integration of coastal management for wetlands*.

Dr. Furukawa discussed the context of wetland management, explaining the important role of local government units and the community in decision making and in implementing coastal management schemes.

He emphasized that by educating the people about coastal management, it would be easy for them to get involved in the activities that would help restore wetlands.



Dr. Teruo Azuma, AQD's Deputy Chief, presented on 22 March a proposal on *Global climate change research* that may be undertaken by AQD.

As an overview, he discussed the worsening impacts of global climate change on fisheries and aquaculture due to the combined effects of warming, ocean acidification, extreme

weather phenomena and elevation of sea level.

He proposed that AQD get involved in studies on mitigation and adaptation measures for coastal communities.



Dr. Akihiro Takemura from University of Ryukyus (Japan) presented his study on *Photoperiodic regulation of reproductive activity in reef fishes* on 17 March.

His experiments were focused on sapphire devil fish, and showed that the fish can perceive and transduce specific wavelengths of light in order to initiate gonadal development.

The result suggests that manipulation of the environment is a useful and eco-friendly tool for regulation of fish reproduction.



Ms. Ma Felisa Cenar (left) and **Ms. Eileen Ragudo** (right) from MERCK gave a lecture on *Safe handling of all reagents as environmental support* on 23 March.

They discussed the *Globally harmonized system* (GHS) of classification, labeling, and hazard categories of chemicals (pictogram) as developed by the United Nations.

They also talked about basic laboratory rules including safety from fire, the most common hazard.

Welcome, our new hires!



Mr. Rodrigo Lacierda is an Information Specialist assigned at the Training Section. He obtained his masters degree in aquaculture from the University of the Philippines Visayas



Mr. Marlon Hacla is an Information Technology Officer assigned at the computer network. He obtained his bachelors degree in computer science from the University of the Philippines Diliman



Ms. Zenith Gaye Orozco is a Senior Technical Assistant assigned at JIRCAS sea cucumber project. She obtained her masters degree in aquaculture from the University of Ghent



Mr. Ronilo Subaldo is an Information Assistant assigned at the computer network. He obtained his bachelors degree in computer science at Western Visayas College of Science & Technology

Farewell, our retirees!

A farewell tribute was held for associate researcher Ms. Eva Aldon and technician Mr. Sabino Padayhag at AQD's Tigbauan Main Station on 14 February.



AQN Chief Dr. Joebert Toledo expresses his gratitude to Ms. Aldon and Mr. Padayhag for their support and loyalty to AQD



Ms. Aldon thanks her colleagues for the happy memories they shared. Meanwhile, Mr. Padayhag says that AQD has been his family's bread-and-butter

Graduates of 2011, kudos!

This year's graduation ceremonies revealed happy faces from the graduates, proud parents and siblings whose hard work paid off. Congratulations, one and all!



Mary Nia Santos, senior technical assistant, finished her Master in Biology at the University of the Philippines (UP) Visayas



Rebecca Mae Toledo, daughter of AQD Chief Dr. Joebert Toledo, finished BS Food Technology at UP Visayas



Kristine and Karen Tendencia, daughters of Eleanor (scientist) and Isidro (technician) Tendencia, graduated respectively with degrees in Bachelor of Law at the Universtiy of Santo Tomas and BS Hotel and Restaurant Management at the University of San Agustin



Kenneth Reyes, son of research technician Federico Reyes, finished BS Computer Science at the Philippine Best Training System College



Llanie Grace Banabatac, daughter of vehicle dispatcher Mr. Ernesto Banabatac Sr, finished Bachelor of Industrial Technology major in Food technology at Southern Iloilo Polytechnic College



Thomas Louie and Victoria Marcela Albacete, siblings of chemist Rose Margaret Albacete, graduated respectively with degrees of Doctor of Medicine at the Central Philippine University and BS Applied Mathematics at UP Visayas



Enrico Bonitillo II, sibling of administrative assistant Sunshine Bonitillo, graduated from St. Therese College with a degree in hotel and restaurant management



Dylan Rey Valencia, son of admin&finance head Renee Valencia, graduated from Iloilo National High School's special science class. He was awarded as *Promising researcher*



Kwini Tedi Igcasan, daughter of electrical engineer Hermoso Igcasan, graduated from Oton National High School



Sarah May Ocampo, daughter of aide Conrado Ocampo, graduated from Guimbal National High School



Gabrielle Marie Eguia, daughter of scientist Ma. Rowena Eguia, graduated *valedictorian* from the Binangonan Garden of Learners



Juliana Rose Pagador, daughter of Gregoria (researcher) and Rosenio (senior information assistant) Pagador, graduated *valedictorian* from Guimbal Central Elementary School's special science class



Charmaine Tristeza, daughter of technician Jerry Tristeza, graduated *salutatorian* from Buyu-an Elementary School



Wayne Alecxis Traya, son of finance assistant Eileen Traya, graduated *fifth honor* from Kinaadman Elementary School Inc.



Royshan Marie Decafe, daughter of finance assistant Marivic Decafe, graduated from Assumption-Iloilo



Amy Depaclayon, daughter of senior technician Ramy Depaclayon, graduated from Guimbal Elementary School

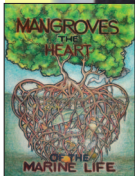


Judy Ann Olorvida, daughter of technician Nemencio Olorvida, graduated from Pipindan Elementary School

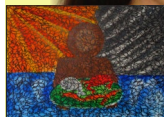
Top artists



Jann Martine Esperancilla, 13 years old, from Assumption-Iloilo. She loves to draw and appreciate art, and said that her drawing shows the importance of mangroves in our ecology since they prevent erosion, hurricane damage and provide nursery for marine organisms.



Aubrey Beatrice Carnaje, 10 years old, from SPED-Integrated School for Exceptional Children. She has received several awards from various national and international art competitions. Aubrey said her painting embodies the destructive ways of fishing that destroy fish habitat.



Laurice Anne Lima, 11 years old, from Graciano Lopez Jaena Elementary School. She is a consistent honor student. She noted that her drawing reflects the value that we should give to every marine life and aquatic resources throughout the world.



Mariela Quipid, 12 years old, from Ramon Magsaysay High School. She loves drawing and cooking, and she said her artwork illustrates how we can take care of our water resources, eg. cleaning up waterways, protecting endangered fishes and planting mangroves.



The four winners received Php 10,000 cash prize during the awarding ceremony on 26 March. Their artworks will be exhibited in Bangkok, Thailand as the official entries from the Philippines to the ASEAN-SEAFDEC conference in June 2011

ASEAN-SEAFDEC drawing contest brings out creativity in Filipino youth

The ASEAN-SEAFDEC drawing contest (Philippines) was conceptualized by AQD on November 2010 upon the request of the Department of Agriculture – Bureau of Fisheries and Aquatic Resources (BFAR). The contest theme was *Fisheries for food security: adaptation to the changing environment*.

AQD through its Development Communication Section organized the contest and disseminated the call for entries through facebook (SEAFDEC_Philippines), two national dailies (*Philippine Daily Inquirer* and *Philippine Star*) with BFAR paying for the advertisements, through the AQD website, and direct invitations to schools & the Department of Education (DepEd). To make sure that the submissions are from children 14 years or younger, the artists were required to submit a certificate from the school principal attesting to their age, among other information like self- and artwork description.

AQD received a total of 103 drawings from 41 schools nationwide by the submission deadline 31 January 2011. The entries came from Bukidnon, Misamis Oriental, Naga City, Binangonan, Laguna, Lipa City, Bulacan, Metro Manila, Samar, Aklan and Iloilo.

The judging was made in two phases:

- (1) **selection of the top 20 by the AQD community** from 22 February through 4 March. The drawings were initially exhibited at AQD FishWorld, and a hundred people voted. These votes represented 63% of the total 152 AQD employees.

The top 20 entries were from the following schools: [LUZON] St Stephen's High School in Manila; Ramon Magsaysay High School in Manila; De La Salle Lipa, Lipa City; St Jude Catholic School in Manila; [ILOILO] West Visayas Integrated Laboratory School; Baluarte Elementary School; Ticud Elementary School in La Paz; Colegio de San Jose; Miag-ao Central Elementary School; SPED Headstart School; SPED ISEC; Assumption-Iloilo; Graciano Lopez Jaena Elementary Sch; Kinaadman Elementary School Inc.

- (2) **selection of the final four from the top 20** by a 7-judge panel composed of professional artists and government representatives. The second judging and final exhibit was at the Amigo Plaza Mall in Iloilo City from 24-26 March. [See box at left for the final four.]

AQD thanks the young Filipino artists for sharing their creativity and thoughts on food security and climate change.





Ribbon-cutting ceremonies mark the two phases of judging and separate exhibits: (BELOW RIGHT) Pupils from Ticut Elementary and WVSU-Integrated Laboratory schools open the exhibit on 24 March at Amigo Plaza Mall (TOP) in Iloilo City. (BOTTOM) AQD admin&finance head Ms. Renee Valencia and UP Visayas College of Fisheries & Ocean Sciences Dean Dr. Carlos Baylon with pupils from Kinaadman and Buyu-an elementary schools open the first exhibit on 22 February at AQD Fishworld



Appreciation to schools

AQD Chief Dr. Joebert Toledo congratulates the school principals and the young artists, handing out tokens (AQD books) and certificates of appreciation. "We now have a glimpse of how our children interpret the pressing global issue on climate change," the Chief said.

AQD Deputy Chief Dr. Teruo Azuma (top right) also acknowledges the efforts of Filipino children and their mentors while SEAFDEC national coordinator for the Philippines & DA-BFAR capture fisheries head Dr. Jonathan Dickson expresses his gratitude to AQD for organizing the contest, to the children for their participation, and to the judges for their effort



Top 20 finalists showcase their other talents. (CLOCKWISE)

Dance number from Tucid Elementary; ballroom extravaganza from Kinaadman Elementary; ballad from Mr. Ernest Florenz Quitalig of WVSU; and *binalaybay* or poetry in Hiligaynon from Mr. Antonio Sibug of Baluarte Elementary



TV network GMA-Iloilo interviews Ms. Mary Sol Gianzon and AQD Chief Dr. JD Toledo



Joining the audience composed of schoolchildren, mall goers and AQD community are former AQD Deputy Chief Mr. Saturo Fukomoto and his wife Ms. Teru Fukomoto (4th and 5th from right below)



Final arbiters (L-R, top to bottom): The judges for the second phase consisted of professional artists from Binangonan, Rizal (Mr. Lester Rodriguez and Mr. Rodelio Cerda). In his message on behalf of the judges, Mr. Rodriguez encouraged parents to continually support their children in acquiring art materials and during drawing contests while he told the children to stay focused.

The other judges include Department of Tourism Region VI Director Mr. Edwin Trompeta; DENR Region VI Planning & Management Division Chief Ms. Edna Locsin; DA-BFAR Press Officer Ms. Melanie Guerra; and Iloilo artist Mr. Edgar Gonzales. Dr. JD Toledo is the head judge



AQD voters at FishWorld (above). The AQD Chief gives token to AQD staff who were able to first select 70-80% of the top 20 and then voted at least 2 of the 4 winning artwork. Awarded as "best judges" were Ms. Annie Franco (inset), Ms. Ma. Richelle Bautista, Dr. Jacques Zarate and Mr. Basil Baylon



Work of artist-judge Mr. Lester Rodriguez



Devcom staff were commended for organizing the drawing contest (L-R): Ms. Gelyn Faigani, Ms. Janelli Garibay, Mr. Isidro Tendencia, Ms. Yvonne Salvilla (of the Office of the TID Head), Ms. Mila Castaños, Ms. Imee Hacla and Ms. Rossea Ledesma

SEAFDEC

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