

INSPECTION

Senior Party official inspects North Hwanghae Province

Choe Ryong Hae, member of the Presidium of the Political Bureau of the Central Committee of the Workers' Party of Korea, vice-chairman of the DPRK State Affairs Commission and vice-chairman of the WPK Central Committee, made a survey trip to the Poman Cooperative Farm in Sohung County, the

Rinsan Catfish Farm in Rinsan County and the Jongbangsan General Foodstuff Factory and Migok Cooperative Farm in Sariwon.

Making the rounds of the Poman-ri seat which is closely associated with the leadership exploits of President Kim Il Sung and Chairman Kim Jong Il,

he said that officials and famers should add more beauty to their community which has been spruced up into a modern socialist rural village under the care of the Party and raise a wave of scientific farming.

At the Rinsan Catfish Farm, the Jongbangsan General Foodstuff Factory and the Migok Cooperative Farm, he stressed the need to put production processes on a modern and scientific basis at a high level and increase grain output in their efforts to carry out the decisions of the Third Plenary Meeting of the Seventh WPK Central Committee, so as to bring into full bloom the noble intention of Supreme Leader Kim Jong Un who is working to provide the locals with more civilized and affluent life.

Compiled from KCNA



Choe Ryong Hae (second from left) inspects the Poman Cooperative Farm in Sohung County, North Hwanghae Province.

INSPECTION

Premier looks round farms and projects in Pyongyang

Premier Pak Pong Ju, member of the Presidium of the Central Committee of the Workers' Party of Korea and vice-chairman of the DPRK State Affairs Commission, made survey trips to the Taedonggang Combined Fruit Farm, the Namsa Cooperative Farm in Rangnang District, the construction site of the forestry apparatuses and materials factory of the Ministry of Land and Environment Protection and that of the Pyongyang perfume factory.

Looking round the Taedonggang Combined Fruit Farm, he encouraged the officials and other working people of the farm who have turned out in the campaign to defend and carry out the Party's ideology and line true to its intention of loving people.

While inspecting the Namsa Cooperative Farm

and the construction sites, he stressed the need to widely introduce the system of rice intensification (SRI) and other high-yield farming method in the agricultural sector, and improve the quality of buildings and

increase the construction speed on the principle of taking responsibility for the safety of the project and guarantee its absolute quality for all eternity.

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Premier Pak Pong Ju (first from right) on an inspection tour of the Taedonggang Combined Fruit Farm.

DIPLOMACY

DPRK, Singapore foreign ministers meet

Talks were held between foreign ministers of the DPRK and Singapore at the Mansudae Assembly Hall in Pyongyang on June 7.

Foreign Minister Ri Yong Ho and his Singaporean counterpart Vivian Balakrishnan exchanged views on further developing the long-standing bilateral ties in different fields and on the situation in the run-up to a DPRK-US summit meeting.

Compiled from KCNA



DPRK Foreign Minister Ri Yong Ho holds talks with his Singaporean counterpart Vivian Balakrishnan.

Anniv: Schoolchildren celebrate their holiday

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sang of the profound reverence of all schoolchildren across the country for the great leaders who initiated the Juche-oriented children's movement and defended the rosy future of coming generations.

Over 30 delegates to the KCU anniversary celebrations received birthday spreads.

The delegates visited President Kim Il Sung's birthplace at Mangyongdae, Revolutionary Martyrs Cemetery on Mt Taesong, Youth Movement Museum and other places. And they had a good time in the Rungna People's Recreation Ground and the Central Zoo.

Schoolchildren's performances were also given at Hyesan Square, the Kaesong Schoolchildren's Palace, the Songdowon Youth Open-air Theatre and elsewhere, and dancing parties and sports and amusement games were held at

schools for orphans and primary and junior middle schools across the country.

The national children's science fictions and models exhibition-2018 was held.

By Jong Sun Bok PT



Young delegates to the celebrations of the 72nd anniversary of the Korean Children's Union look round the national children's science fictions and models exhibition-2018.

In brief

Kim Jong Il's works published

The Workers' Party of Korea Publishing House has brought out Volume 21 of Kim Jong Il's Complete Works, a library of Kimilsungism-Kimjongilism.

The new volume contains 71 pieces of speech and talk made by Chairman Kim Jong Il between June and October 1973.

The works provide solutions to how to develop the national economy and bring a sufficient, civilized life to the people as early as possible.

Some documents detail the ways to create a model of independent humans in film production and to compose any words and melody to meet the national sentiment and taste so that they could become popular.

Others refer to the need to successfully introduce the universal 11-year compulsory education and to develop the sports sector as required by the socialist society and recruit reserves properly.

Restaurants celebrate anniversary of great leader's inspection

Chairman Kim Jong Il visited Okryu and Chongnyu restaurants in the heart of Pyongyang on June 5 2008 after they underwent renovation projects and gave important instructions

on effecting a dramatic turn in the development of cookery and public catering service.

Over the past decade, the restaurants have strived to increase the kind of Korean dishes and improve service.

Meetings took place at the restaurants on June 4 to mark the 10th anniversary of his inspection tour.

At the events, speakers said that the employees of the public catering facilities were highly appreciated at national cooking festivals and contests by constantly improving their skills and made great achievements in consolidating the material and technical foundations of service.

They called on the employees to put business activities on scientific and IT basis at a higher level and improve public catering service uninterruptedly in the spirit of serving the people devotedly.

Pochonbo games start

The Pochonbo Torch Prize Games have started with an opening ceremony held at Hyesan Indoor Stadium, Ryanggang Province.

The event is to be held in Pyongyang, Phyongsong, Hamhung, Chongjin and Nampho between June 1 and 30, divided into dozens of sports and classified into senior and junior levels.

By Yun Kyong Il PT

STEEL

Micro alloy steel production process set up

A micro alloy steel production line has been established at the Chollima Steel Complex.

The advanced steelmaking technology improves the mechanical properties of steel by adding alloying elements to it at a ratio of one to dozens or hundreds.

The complex develops and introduces micro alloying techniques to improve steel quality while saving alloying elements, energy and steel materials as much as possible in the production of alloy steel for machinery and metal structures. One of them is the method of making alloy steel with locally abundant ascharite, instead of expensive chromium, nickel, manganese and other alloying elements that were used previously.

Technicians have made ferroboration with ascharite to add it to alloy steel in very small quantities, thus establishing

a process of producing a new steel material without using chromium.

They have also ensured the Juche-orientation of raw materials and fuel in the alloy iron production process, a preceding process, thereby cutting the cost of fuel remarkably and providing a guarantee of normal production. Furthermore, they fixed the mixing ratio of such alloying elements as ascharite and feldspar according to steel quality and upgraded the electric furnace to lower the consumption of electricity and electrode per ton of ferroalloy.

The new production line is a continuous production line capable of mass-producing quality alloy steel as the four processes of melting, refining, continuous casting and rolling are integrated. Especially, the techniques of increasing the lifespan of refractory and poling molten iron by means of inert

gases have been introduced into the refining process to shorten the maintenance time and improve alloy steel quality. The introduction of new techniques into melting and continuous casting processes has also shortened the melting time per charge and further upgraded the processes.

The micro alloy steel produced at the new line has excellent mechanical properties in terms of yield point, ultimate strength, elongation and area reduction and takes less than half the previous production costs. It is used in manufacturing such vehicles as lorry and tractor, building bridges and making pressure containers and machinery. The mechanical and other technical properties of steel materials can be intensified by using locally available alloying elements.

By Choe Kwang Jin PT



KCNA

The Chollima Steel Complex sees a steady boost in steel production.

FISH FARMING

Cage-net fish farming brings profits to county

What are eye-catching in Kumchon County, North Hwanghae Province, are a cage-net fish farm in the Ryesong River and a floating restaurant nearby.

Here diners can relish the taste of fresh fish.

Sin Kwang Ryol, manager of the Kumchon County Breed Fish Farm, said the cage-net fish farm and service ship are one of the sources of pride of the county folks.

According to him, the mobile cage-net fish farm set up by the breed fish farm has brought great benefits.

Located at a deep place with slow water current, the farm consists of over 20 cage-nets to raise different kinds of fish, a general control room, a feed storehouse and a lounge for employees. It is equipped with a system of automatically

controlling underwater monitoring and feed supply and a power generation and supply system based on the combination of solar panels and wind turbines which supply power to the farm.

Farmers adjust the height of cage-nets scientifically according to water temperatures so as to increase fish production. They also operate a floating feed-making machine they made by themselves.

As fish farming scale expands, they secure necessary fry and

work to increase the number of fish.

The farm with an annual capacity of dozens of tons raises carp, goldfish, grass fish, mandarin fish and other nutritious fish which can be grown with natural feed alone.

By Chae Hyang Ok PT



PAK KWANG HUN / THE PYONGYANG TIMES

A cage-net fish farm is built at the Kumchon County Breed Fish Farm in North Hwanghae Province.

Projects completed

Kumyagang Power Station Unit 2 has been built in Kumya County, South Hamgyong Province.

It was built in tiers along the Kumya River after the completion of the Kumyagang Army-People Power Station, a large-scale hydropower station.

With a goal to build another power station on the river which is located at a favourable place in physiographic terms, the county organized powerful construction forces and pushed ahead with the project.

Builders built a dam across the Kumya River and carried out their tasks in a short time, including the construction of earth and sand banks, a drainage canal and hundreds of square metres of generator room.

The power station is expected to give a boost to the local industry.

A maize processing branch of the Jongbansan General Foodstuff Factory has been built splendidly.

All the production processes of the branch factory are automated and put on assembly line, and the quality and hygienic safety of the products are fully guaranteed.

An inaugural ceremony took place on June 4.

The Manbok Vegetable Farm has been built in the Sonbong area, Rason.

The farm is furnished with the general control room for vegetable greenhouses, animal houses, fish farm, kindergarten, nursery and hall of culture.

Now the agricultural workers are filled with the enthusiasm to contribute to improving the people's dietary life by widely cultivating vegetables of good species and high-yielding varieties and developing livestock and fish farming.

An inaugural ceremony was held on June 1.

That day, farmers moved into new homes.

Compiled from KCNA

PRODUCTION

Laminated chipboard-making technique developed

Researchers of the design institute of the Ministry of Forestry have developed a technique of producing high-density laminated chipboard.

Generally, chipboard made with wood by-products is classified into single-layer and multilayer panels and it is important to ensure proper density for multilayer panel.

The researchers made a mobile chopper and other machines and introduced dozens of technical innovation plans to put all production processes from the preparation of raw materials to final cutting on assembly lines.

Noticeable in the new production line is that twigs, roots, shavings and plywood

and other wood by-products undergo secondary processing to be used for making chipboard.

The introduction of a high-speed mixer has improved the quality of the mixture of adhesives and sawdust and a new heat-compressing method has been adopted to improve the quality of chipboard.

This production line has been introduced into the Kilju Plywood Factory to prove its merits.

It saves the labour of burning away by-products in the timbering place.

And the laminated chipboard is highly dense and hard and meets all technical specifications including thickness, weight, bending strength and absorptivity.

The factory uses tens of thousands of cubic metres of wood by-products a year to produce lots of chipboard on this production line.

The smooth chipboard is widely used to make such furniture as desk and chest of quilts.

The production line was highly appreciated at the recent national sci-tech festival for contributing to the development of recycling industry and environmental protection.

The institute is working to introduce the technique to all the wood processing factories at home.

By Jong Hwa Sun PT

RAIL TRANSPORT

Achievements in rail transport informatization

The academy of railways under the Ministry of Railways has made remarkable achievements in their research to put rail transport on a scientific and IT basis.

The major success is the zone centralized computer interlocking system developed by the railway automation institute of the academy.

The researchers have developed various programs for control display, run module, power management and monitoring and measuring, and made interlocking facilities and other equipment.

The system now under trial run at the Hyesan-Samjiyon railway line proves to be effective.

As it supports centralized control of all stations in the line with computer at the major station of the zone, it not only

makes traffic control science-based and maximizes the traffic capacity, but also ensures safety. It is economically effective as it costs low, easy to maintain and repair and has good flexibility and extensibility.

The institute has also developed a new headlight of the locomotive.

Made by using high-intensity light-emitting diode, the new headlight can light up to the locomotive braking distance with more than one kilometre visibility distance. Its power consumption is only 20 per cent of the previous one and production cost is also low.

Most attractive among the latest sci-tech achievements is the locomotive information terminal unit developed by the railway science information institute.

When a train runs, the terminal unit collects data about the locomotive's position at one-second intervals with GPS receiver and the collected data is displayed on LCD screen via Bluetooth.

And it sounds an alarm when the locomotive approaches the tunnel, bridge, crossing and other structures and displays the locomotive's speed.

It also transmits data about the location of locomotive to the information centre of the Ministry of Railways through a mobile communications network and displays them in real time for end users like dispatcher, transport control official and others.

By **Jong Tang Song** PT

PROFILE

With an eye to higher goal



PAK KWANG HUN / THE PYONGYANG TIMES

Jang Kum Ok (middle) with her colleagues.

Jang Kum Ok, PhD and section chief of the natural science institute at Kim Hyong Jik University of Education, has recently published her finding in a prestigious international journal to be thrust into the limelight.

The associate professor in her late 40s raised the problem of thermodynamic energy of phase transition in barium titanate crystal and clarified such electrodynamic properties as polarization and dielectric constant.

Earlier, the SCI-class international journal carried her two findings about the higher-order approximation of the phase transition in the Pb-based perovskite oxide solid-solutions and about the phenomenological approach of the ferroelastic phase transitions in ABX₃-type crystals.

In her childhood, Jang Kum Ok was a science fiction enthusiast.

She came to be interested in physics in her middle school days owing to Pak Jong Nam who was posted to the school after graduating from

Kim Hyong Jik University of Education.

"At that time, our students were fascinated by the absorbing lessons given by the young teacher. He showed us the phenomenon of electrostatic induction through a striking experiment, which stimulated my interest in matters and phenomena. And that's why I joined the physics group," recalled Jang.

She continued her study at Kim Hyong Jik University of Education and, after graduation, she began to work at the natural science institute of the university and ventured into the unknown world of theoretical physics.

She delved into the properties of substances and the development of materials.

In 2015 she obtained her doctorate with the study of the investigation method for structural stability of the phenomenological model of phase transition in crystals and its application.

In her thesis, she demonstrated a method of correctly defining the thermodynamic energy of matter in the study of variability according to the physical properties of crystal materials and the external conditions of their structures including temperature and pressure.

Afterwards, she published several papers conducive to developing new materials for application to condensed media and the study of their physical properties and was highly appraised at four rounds of DPRK-Germany symposium on applied mathematics and physics.

While conducting research and giving lectures for postgraduate students, she started such new subjects as "phase transition physics" and "group theory in condensed matter", thereby contributing to the development of theoretical physics.

ROSE PROCESSING

Factory produces rose water and tea

Rose, symbolic of love and beauty, has been cultivated as an ornamental flower since olden times.

Now rose production has been put on an industrial basis in many countries as it looks beautiful and also leads others in medical value and perfume making.

Rose is used in cosmetics and perfume industry and in foodstuff industry it is mainly used for making sweets, cakes and soft drinks.

The Ryugyong Rose Processing Factory produces rose water and tea good for health and beauty.

The factory grows pink roses in the non-farming land covering over 100 hectares.

According to a factory official, pink rose has a large content of essential oil and a high extraction rate as it has been acclimatized to local climatic and soil conditions.

Rose oil is extracted from fresh or salted roses, and rose water comes in the course of it.

Rose water is used for making cosmetics and for rose bath at the Ryugyong Jangmi House built on the Taedong riverside.

It has a sterilization effect and is highly effective in promoting blood circulation in skin and metabolism. When applied to skin, it has moisturizing, glazing and anti-wrinkle effects and maintains skin elasticity.

And such elements as essential oil, protein and peptide help people maintain mental

stability. So when it is spread in the air, it has a sedative effect and prevents skin diseases.

With rich fragrance and mild taste rose tea gives stability to people who feel blue and is especially good for relieving fatigue.

As it has a rich content of anti-oxidizing substances and vitamins C and E, regular drinking of rose tea helps remove black spots and wrinkles on the face, increases skin elasticity and gives gloss to it. It is also helpful in promoting metabolism as it protects liver and is good for digestion.

The factory bakes selected rose flower buds in a drying oven

at a set time and temperature and packages the products.

"The secret of rose tea is that the tea cup should be heated before drinking so that it would not cool and the tea fully generates aroma," said the manager of the factory.

"And as the flower calyx also contains various vitamins, it tastes better when the tea is drunk with calyxes in," he said.

The factory plans to produce natural rose refined salt.

It is now developing various new products including rose drops, cake and jelly.

By **Chae Hyang Ok** PT



KIM CHOL / THE PYONGYANG TIMES

Women pick up roses in the field.

By **Pang Un Ju** PT

EDUCATION

Support to education gains momentum

Closer state and social attention is being paid to education true to the slogan "Let us make a leap forward by dint of science and guarantee the future by dint of education!" put forward at the April plenary meeting of the Central Committee of the Workers' Party of Korea.

Nampho is successful in the efforts to improve educational conditions and environment in line with the requirements of the times.

According to an ambitious plan, the city is pushing the extension and construction of schools belonging to the general education sector.

Large quantities of materials for building and repair have been provided by supporters'

organizations, with the result that buildings were extended at Kammun Primary School in Waudu District and other primary schools. And Posan Primary School is being built at the final stage in Chollima District.

In addition, several senior middle schools have been refurbished and modernization projects are under way at Tokhung Senior Middle School in Kangso District and Taejong Senior Middle School in Taean District.

While increasing investment in the education sector in a planned way, the city has sent to educational institutions more than 46 500 pieces of lab apparatuses and teaching tools of over 120 kinds this year in

order to promote the efforts to put education on scientific and modern basis.

Remarkable successes have also been made in consolidating material foundations in the higher education sector.

Modern school buildings were built last year at Nampho University of Medicine, Nampho Technical College and Nampho Teachers Training College, and online correspondence courses were started this school year at Nampho University of Fisheries and Nampho University of Education based on the provision of necessary equipment and good preparations for teaching.

These successes are associated with the efforts of supporters' organizations in the city which render unstinting assistance to schools.

In particular, officials of the city rural economy committee, Nampho Port, West Sea Barrage Company and Nampho Shipping Company devote their sincerity to supporting schools.

Backed up by their enthusiastic support, educational facilities are spruced up and the quality of education is improved.

Local teachers and students have won national contests.

By Pang Un Ju PT



PAK CHANG BOK / THE PYONGYANG TIMES

Officials in charge of education in Nampho often visit schools to seek better ways to improve the educational conditions and environment.

HEALTH CARE

Teaching hospital applies advanced methods to neurosurgery

The department of neurosurgery at the Pyongyang Medical College Hospital of Kim Il Sung University introduces advanced diagnosing and curing methods to improve treatment effect.

The surgeons of the department well known at home in the field of neurosurgery have made strenuous efforts to resolve pressing issues in the clinical practice.

Chief Jong Chan Hong and other medical workers have worked to acquire advanced medical science and technology and build up their abilities.

A few years ago, they established an endoscopic nerve surgical operation method, making notable achievements in the operation of dropsy of head and hypophysoma. As the first of its kind in the country, the method is attracting

the academic attention as it helps decrease operational invasion, takes less time than open operation and has high effectiveness.

They also developed the minimally invasive surgery of slipped disk to reduce the incisional area, shorten the treatment period after operation and markedly decrease the attack rate of various complicating diseases. They settled many technical problems arising in developing the minimally invasive surgery of slipped disk including the making of intervertebral disk endoscope, thereby taking big steps in the treatment of tumour of spinal cord, slipped disk and other spinal diseases.

A winner of national patent last year, the research hit has high treatment efficacy and does not have any relapse after operation.

The surgeons also applied microsurgery to cervical spondylosis, which requires high technical skills, completely curing dozens of serious cases in the past several years.

In the course of developing and introducing cutting-edge medical science and technology, the surgeons developed the internal skull pressure measuring system and went on to intensify the study of the system. They measured the internal skull pressure of the patients with head wounds in real time to give medical treatment more scientifically and technologically while reducing the consumption of medicines.

The scope of its utilization is broad.

In recent years the surgeons solved technical problems arising in difficult operations

ACROBATICS

Acrobats triumphant in Russian festival



KCNA

Acrobats get home after winning gold and special prizes at the 1st international acrobatics festival in St Petersburg, Russia.

The DPRK's physical stunts "Horizontal bar and flying from a swing" and "Swing balancing" were awarded a gold prize and a special prize respectively at the first international acrobatics festival held in St Petersburg, Russia, between May 24 and 27.

Guests of honour, the jury and audience extended unstinting praise to the Korean acrobats for their wonderful performance.

The chairman of the festival organizing committee and also foreman of the jury and president of the Russian state acrobatic

company said the Korean acrobats captured the heart of the audience with unique and refined technical movements and gorgeous rhythms.

The vice-chairman of the Monte Carlo international circus organizing committee described the DPRK as a "kingdom of acrobatics" no other countries can match, adding that "Horizontal bar and flying from a swing" is the best of all acrobatic works.

Compiled from KCNA

RESEARCH

New soccer boots developed

The sports goods research institute of the Academy of Sports Science has developed a new type of football boots suitable for artificial turf pitch.

According to Choe Yong Rim, section chief of the institute, the spikes sole production process based on the imported polyurethane injector has been replaced with that relying on homemade hydraulic press and automatic heat treatment device.

The outsole is designed and manufactured in such a way that the spaces between

pointed pieces are linked in five different shapes so that players can select boots according to their constitutional features and use.

It also fixed the qualitative indexes of the new spikes on the basis of rational designs of shoetree and outer rim.

The new product is popular with professionals and fans as the sole ensures good touch with the ground and it is convenient for movement and it costs less than previously as well.

Compiled from KCNA

like spinal back fixation to improve medical service in terms of diagnosis, decision of operation and quality of operation.

They are now working hard

with an eye to bringing about a radical turn in the treatment of cerebrovascular diseases in the near future.

By Jong Sun Bok PT



PAK CHANG BOK / THE PYONGYANG TIMES

Surgeons of neurosurgery department of the Pyongyang Medical College Hospital at Kim Il Sung University perform an operation by employing advanced methods.

ENVIRONMENT

Sea pollution by plastic waste, challenge to all

Sea pollution by plastic waste is one of the challenges humankind faces at present.

According to information available, 46 000 wastes on average are now drifting per square mile of the oceans in the world.

There are so much plastic wastes that a “great Pacific waste zone” appeared in the eastern areas of the Pacific, in which about 80 000 tons of plastic wastes drift.

Recent estimates made by researchers on the basis of statistics of each country say that 6.3 out of 8.3 billion tons of plastic goods mass-produced from the 1950s have been dumped and most of them accumulated in the sea and other natural environment. Ten million tons of plastic wastes are dumped into the sea every year.

The United Nations Environment Programme warned that a large amount of plastic wastes from Asia, the

US and South America have flooded into the Galapagos Islands, Ecuador, accelerating the extinction of such sea animals as sea turtle.

Recently plastic wastes were often discovered in the intestines of sea animals, highlighting the growing impact of plastic wastes on the marine ecosystem.

A 1.5-litre plastic bottle was found in the body of a 12 kg codfish caught in the sea off the west coast of Norway and there was a 12 cm long plastic suction pipe in the nose of a sea turtle caught in the sea off Costa Rica.

Sea pollution by plastic wastes has emerged as a serious issue that threatens the lives of people as well as marine ecosystem, arousing serious concern of the international community.

For such a reason, the UN Environment Programme has selected the theme for this year’s Day of World Environment (June 5) as “Beat

plastic pollution” and called on all countries to positively strive to protect the sea, the wealth of humankind, from plastic wastes.

Many countries actively join the international drive.

They have already announced or begun to carry out the plans to completely prohibit or gradually abolish the production, import, sale and use of plastic goods including plastic packages or bags.

Solutions have been provided to making plastic wastes harmless by effectively dissolving them.

Some countries proceed with programmes to process plastic wastes to turn them into building materials, raw materials and source of fuel.

The international effort goes on to protect the marine ecosystem from the plastic pollution.

By Choe Yong Nam PT

ECOSYSTEM

Migratory bird reserves inscribed in global wetland list

The migratory bird reserves in Mundok County, South Phyongan Province, and Rason City have recently been put on the Ramsar wetland list and acceded to the Ramsar Convention.

The convention dedicated to wetland protection was adopted in 1971 in Ramsar, Iran and its secretariat with over 170 member nations around the world promotes the protection and rational use of all wetlands.

According to an insider, several rounds of survey confirmed that the reserves fully meet the Ramsar standards.

They are rich in biodiversity and have favourable natural and geographical conditions for the

living of migratory birds.

The Mundok migratory bird reserve (designated in 1995) is inhabited by 22 endangered species of water birds and white-fronted goose and several other species of waterfowl accounting for over 1 per cent of their population in the East Asia, if not in the world.

In particular, over 120 species of more than 80 000 waterfowl including duck and snipe make a stopover in the reserve in spring and autumn.

It was registered as an East Asian-Australasian flyway network site last April.

The Rason migratory bird reserve (designated also in 1995)

serves as a habitat for over 30 internationally endangered species of migrants and 15 species of water birds like mute swan accounting for over 1 per cent of their regional or world population.

The DPRK acceded to the East Asian-Australasian Flyway Partnership in 2017.

Having set more than 30 areas on the east and west coasts as migratory bird and wetland reserves, it has taken strict measures for their protection and contributed to the conservation of global ecosystem and environment.

By Jong Tang Song PT



Flocks of migratory birds fly into the Rason reserve.

JON SON IL

MONUMENT

New natural monuments put to national list

Three elements have been put on the national natural monument list.

Ryongaksan spring water has widely been known for its good taste and quality since olden times.

It gushes out at the foot of Mt Ryongak in Wollo-ri, Mangyongdae District, Pyongyang, and “Wollo-ri” derives from the meaning that there are lots of macrobians in the place for the good water. As the rumour that the water is good for longevity was wide spread, many people are said to have frequented the mountain to drink it.

The bottled spring water is mass-produced at the modern Ryongaksan Spring Water

Factory in the area.

Kumya poplar is 38 metres tall and 26 metres wide from east to west at the crown and 26.5 metres wide from north to south.

It is of great academic value and under nationwide protection as it is one of the tallest and oldest Korean poplars.

Hwaphogum spring water in Hwapho-ri, Phyongsong, South Phyongan Province, is also well-known as it is good for health and treatment.

The natural smaller molecule water with the association of 8 contains a small quantity of gold, silver and selenium.

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TURF

Turf institute breeds new varieties



KCNA

Researchers at the Turf Research Branch of the State Academy of Sciences observe the growth of a new turf variety.

The Turf Research Branch of the State Academy of Sciences has developed new turfs with good ornamental effects.

Ri Kyong Chol and other researchers bred new varieties acclimatized to local conditions on the basis of the success of having cultivated a new variety of bluegrass, Mangyong-1, with a long green period and strong vitality.

The research team treated Pen A-1, a turf variety exclusively used for the arrival area of golf course, by a laser-beamed mutation method to develop Ryugyong-1, a new variety of *Agrostis stolonifera* L whose leaves are softer and brighter and lighter in colour than the starting species Pen A-1.

Ryugyong-1 can be grown in any soil and does not need much fertilizer and water in the period of growth except severe drought. It grows well in the period when the temperature is between 15 and 25 degrees centigrade and the atmospheric humidity is more than 50 percent. It remains green for about 280-300 days from mid-March when it sprouts to late December or early January

next year, 7-10 days longer than Pen A-1. It is all right even if it is cut short and does not require frequent cutting.

The researchers also developed Ryugyong-2, another variety of *Agrostis stolonifera*, by applying a radiation mutation method to Pen A-1.

Ryugyong-2 has dark green leaves compared to Ryugyong-1 of the same family. It is suitable for creating high-grade lawn as it is high in covering density and has quality leaves and is useful in creating lawns in an artistic form including the representation of letters and patterns in combination with Ryugyong-1.

The branch has registered bluegrasses “Execution”, “Merit”, “Bluebird” and other acclimatized foreign turf varieties as the national garden plants and is widely introducing them.

It now intensifies research into the “golden” turf which was widely used for urban landscaping in the past to breed a new variety that remains green for long and highly resistant to treading.

By Pang Un Ju PT

REUNIFICATION

Pomminryon calls for implementing Panmunjom Declaration

The north, south and overseas headquarters of the Pan-National Alliance for Korea's Reunification (Pomminryon) released a joint resolution on June 2.

The joint resolution expressed the will to translate the Panmunjom Declaration, a new milestone for independent reunification, into action.

Pomminryon will absolutely reject outsiders' interference and arbitrary practices threatening the destiny of all Koreans, usher in a new era of independent reunification pursuant to the principle and spirit of By Our Nation Itself, and strive to set up a permanent and durable peace mechanism on the Korean peninsula, it noted.

It will arrange a joint national event involving all circles without fail to lay foundations for holding a great pan-national gathering for reunification, it stated.

It will make joint national events specified in the Panmunjom Declaration success to rev up the atmosphere for north-south reconciliation and cooperation and demonstrate

the stronger will to achieve great national unity and independent reunification, and provide foundations for the successful holding of a great pan-national gathering for reunification in the future by successfully hosting joint national events, it pointed out.

It will work hard to immediately resolve the humanitarian problems caused by national division and reenergize non-governmental exchange and cooperation, it said.

Pomminryon, it stressed, will make proactive efforts to remove diverse anti-DPRK sanctions including the May 24 measures cooked up during the reign of the anti-reunification and confrontation seekers, as well as obstacles in the way of inter-Korean cooperation and exchange.

It will make redoubling efforts to get all legal and institutional mechanisms detrimental to national reconciliation and unity abrogated and to have the south headquarters of Pomminryon legalized, it said.

The Panmunjom Declaration and the "national security

law" cannot coexist even for a moment, it asserted, adding that Pomminryon will strive to get the "NSL", the biggest obstacle to national reconciliation and unity and fence-mending between the north and south, abrogated at the earliest possible date and to implement the Panmunjom Declaration to make the south headquarters of Pomminryon be legalized without fail.

It underscored the need for Pomminryon to take an active part in the campaign to get the US hostile policy towards the DPRK withdrawn and a peace treaty concluded.

In order to ensure lasting peace and achieve independent reunification of the Korean peninsula, it emphasized that Pomminryon should conduct positive activities lest the US interfere in the matter of the Koreans' destiny anymore and that all the fellow countrymen should join efforts to make sure that the US discontinue the DPRK-targeted hostilities and all sorts of sanctions it applies under the signboard of the UN and conclude a peace pact at once.

EU

In pursuit of independent defence

The European Union is speeding up a drive to build its own armed forces with the establishment of the PESCO in December last year as the momentum.

The president of the European Commission told a security meeting in Munich last February that Europe could no longer depend on others in the field of security and defence, adding it could not leave its security interests only to the care of the US. He also stressed the need to channel big efforts into the security field in order to get rid of subordination.

German and French defence ministers also echoed his view and underscored Europe's independence in the security field.

On March 6, the EU defence ministers met in Brussels to confirm practical tasks to be tackled by the PESCO.

According to the meeting, the organization is required to carry out 17 detailed tasks including the establishment of the EU's military drill verification centre, the buildup of immediate counteraction and mutual cooperation against cyberattack, the improvement of the joint

maritime surveillance network and the establishment of a European medical unit.

When the tasks are carried out, the EU will have a new military structure which is distinctive from the one that has so far been in place within the framework of the NATO and, more specifically, the independent command organs for its management and operation.

The European Commission set up a defence foundation worth 5.5 billion euros.

The EU is now pushing ahead with an undertaking to build joint nuclear forces so as to free itself from the US nuclear umbrella. To this end, measures are under discussion to place French nuclear weapons under the control of the European joint armed forces headquarters, raise funds for its upkeep and map out a defence strategy.

The public are of the opinion that solid foundations have been laid to establish the European defence alliance desired by the EU long ago and the EU aims to cope with a possible change in the mission and duty of the US-led NATO following a possible shift in the US strategy toward Europe.

The US and NATO are anxious about the situation.

If Europe achieves integration in defence, the NATO will lose its justification to exist in the region and its foundations will be shaken as EU member states make up the overwhelming majority of the military bloc.

That is why the US and NATO are threatening them over their moves towards defence integration.

The chief deputy assistant secretary of Defense for NATO hoped that the EU would not take away major weapons and troops from the NATO on the pretext of the PESCO.

Meanwhile, the US and NATO are scheming to use the PESCO as a supplementary organ for beefing up the military capabilities of the NATO.

They plan to confine the role of the PESCO only to the cooperative aspect in military techniques and set it as the supplement of the NATO in order to lighten its burden for the defence of Europe.

Their demand, however, proves to be foolish.

As the director of the European institute under the Carnegie Peace Foundation of the US said, "Though Americans attempted to block the EU's independent defence policy in the past, they failed to check it after all", the ship for Europe's independent defence has already left shore to gather speed.

COMMENT

What doesn't Japan know?

Once, a writer gave a geopolitical description of Japan on the map, saying it looks like four islands being scattered over the sea, kicked by Korea in the shape of a combat boot.

His words are called to mind, seeing Japan driven to a corner by the strong mainstream of the Korean peninsula situation making desperate attempts to grasp at straws for survival.

When he heard the news about Washington's cancellation of the DPRK-US dialogue while attending an international meeting, Abe cheered it, saying he "respects and supports it" and originally he "thought north Korea-US summit meaningless".

What happened next was a sight worse than it was before. As the US announced not in a day's time that the schedule for the summit remains unchanged, Abe just took a U-turn and applauded it, saying he "positively welcomes it" and "hopes for the summit talks more strongly than any others".

Such a complete about-face makes viewers feel bitterness to Japan rather than raise their eyebrows.

In actuality, Abe was so anxious about the rapid development of the DPRK-US relationship that he called and even visited the White House,

arguing it is time to maintain closer cooperation than ever before.

At the same time, he advocates a "complete, verifiable and irreversible denuclearization", describing the DPRK's proactive and courageous measures for peace and stability on the Korean peninsula and beyond as the "result of sanctions and pressure".

To see Japan behaving like a reed in the windy swamp while studying the face of its master, bereft of the ability to see with its own eyes and think with its own head, only makes others have a vague idea of when it would shed the stigma of "political dwarf".

What does not Japan know then?

Two rounds of inter-Korean summit took place at Panmunjom, a truce village symbolic of decades-long division and confrontation, and the Panmunjom Declaration was published, setting a milestone for and heralding the beginning of inter-Korean reconciliation and unity, peace and prosperity. And it has become a reality to remove hostility which has lasted for decades between the DPRK and US. They are all hailed by the international community.

But only Japan turns a blind eye to this stark reality and a deaf ear to the axiom.

Most recently the DPRK closed down the northern nuclear test site, attracting the focus of the international attention, and the whole course of it is enough for anyone to see the firm attitude and will of the DPRK to discontinue the overall nuclear test and contribute to the building of a nuclear-free world in line with the common aspirations and wish of humankind.

Reuters and other foreign media outlets put emphasis on the fact that two of the tunnels the DPRK boldly exploded could be used for powerful underground nuclear tests, and the UN secretary general also lavished praise on it, describing it as a measure to build firm confidence and a great contribution to the development of the current situation.

Is Japan blind to the DPRK's well-intentioned measures and deaf to the sincerity of the international community?

Japan was not invited to the ceremony to shut down the DPRK's northern nuclear test site because the latter didn't deem it necessary to invite those fools who branded it as a "political gesture".

The "abduction issue" Japan is boisterous about is as shabby and ridiculous as a piece of cloth in the flea market.

It is reasonable for it to make an apology and reparations for the unprecedented crimes of having occupied Korea militarily and inflicted intolerable misfortune and sufferings on the Korean nation before raising arguments about the already settled issue again.

Why then is Japan so jealous of and strongly opposed to the atmosphere of reconciliation and peace on the Korean peninsula?

It can be rightly claimed that Japan has already sharpened the edge of a sword for the revival of militarism and reinvasion of Asia, running counter to the trend of the international community to peace and stability.

It is self-evident that if a new era of reconciliation and peace opens ahead of Japan, its wild ambition to become a military power and invade Asia would come to naught.

Therefore, Abe and his clique cared too much about the DPRK-US dialogue from the beginning, wondering if any change they don't want might happen.

If Japan wants to exist on the globe, not on Mars or Jupiter, it should discard the bad habit of measuring everything with hostility and confrontation.

Kim Ryon I

By Kim Rye Yong PT

SOCCER

Premier league wraps up the first round

The premier league soccer tournament continues at the final stage in the DPRK.

In the first round of the premier league all teams have to play two matches, home and away, and each has one match to play now.

The first-round games will come to an end this month.

Amidst the growing interest and enthusiasm among the rooters, coaches and players also work hard to produce good results.

At present, April 25, Ryomyong, Hwaeppl and Kigwancha are ahead of others.

In particular, Hwaeppl is doing better than the same period of last year with eight wins, two draws and one loss in 11 matches.

Last year its average ball possession was relatively high with 67 percent, but goal average was low.

It showed that the team players had good physical fitness and high techniques, but its person-to-person combination and scoring capacity were considerably weak.

Comparison of matches it played this year and last year offers a glimpse of the efforts it directed to remedying the defects.

“It is the most important for a team to win and for players to score, but I don’t want any blind and accidental score or win,” said Mun Ho Il, head coach of Hwaeppl.

How much his intention runs through the team’s game

play can be fully explained by the fact that out of 19 goals it has scored so far in the first-round matches, 15 were made by well-organized attacks except 4 by long-distance shots and penalty kick.

“There are many matches and the end results are still a long way off. So, it is difficult to say that Hwaeppl will win. But I hope it will unfold more

thrilling scoring scenes in the second round,” said Jon In Chol, a supporter of the team, living in Moranbong District, Pyongyang.

The last match of the first round between Hwaeppl and Rimyongsu took place on June 3 at Kim Il Sung Stadium.

The former opened the scoring from corner kick in the 36th minute. Hwaeppl’s No. 8 scored the second with a header of a volley in the 57th minute.

The latter made several attacks to make up for the loss until the final whistle, but in vain, losing the game 0-2.

By **Jong Tang Song** PT



KIM CHOL / THE PYONGYANG TIMES

A scene from the match between Hwaeppl and Rimyongsu.

ICH

More elements added to national ICH list

The National Authority for the Protection of Cultural Heritage has recently inscribed 11 elements on the national intangible cultural heritage list.

Among them are the spotty porcelain-making technique, Kyongsong sand balneotherapy, folk song *Yangsando*, shuttlecock game, bean curd-making method, pottery-making technique, lacquering art and kayagum plucking.

The spotty porcelain-making technique came into being in the period of Koryo Kingdom (918-1392) as a method of retaining the harmony of natural colour in pottery. It enhances the artistic quality of the handicrafts by virtue of a variety of shapes, unique colours and intaglios.

Kyongsong sand balneotherapy is a traditional remedy which has widely been known through its application to the treatment of diseases and relieving of fatigue.

Yangsando has been sung by Koreans for a long historical period and is known as a Korean oldie in the world. And the shuttlecock game is favourite with children.

The bean curd-making method and pottery-making technique also contribute to diversifying and refining the local diet and enriching the local culture.

Compiled from **KCNA**

ARCHAEOLOGY

New tomb murals shed light on Koguryo culture

An archaeological excavation team of the Korean Central History Museum has recently unearthed a tomb with murals from the period of the Koguryo Kingdom (277 BC-AD 668) in Jangsuwon-dong in Samsok District, Pyongyang.

The tomb is located on the eastern slope of a mountain about 2 kilometres northeast of the seat of Jangsuwon-dong.

The half-underground tomb with a stone chamber and earth mound faces south, slightly inclined to the west, and has a rectangular shape in plane figure with the east-west width being longer than the north-south length.

At the time of discovery, part of the cover stone for the ceiling was already broken to reveal the chamber, but its ceiling and upper parts of its walls were preserved comparatively well.

The inner passage leads southwards, slightly slanting eastwards.

Its walls were erected with limestone blocks, and only the

lower part of them remains at present.

Gravel with each pebble being 5-7 centimetres in size was spread over the floor to the thickness of about 10 centimetres and tamped, before it was covered with lime plaster to the thickness of 3 centimetres.

The walls of the chamber were also built by piling up limestone blocks and covering lime plaster over them, and the murals are seen on them.

The chamber is 2.7 metres long from north to south and 3.2 metres from east to west, with each wall being 1.4 metres high and it is 2.6 metres high from the floor to the cover stone at the ceiling.

All four walls bore traces of pictures and there were flakes of pictures fallen from the ceiling.

The finds show that the murals represent four guardians in black, reddish brown and yellow.

The picture on the northern wall portrays a tortoise-serpent

the body and tail of the tortoise and the head of the serpent can be seen.

The southern wall is devoted to a phoenix in reddish brown and yellow where the wings and legs can be seen.

Though parts of the imaginary animals remain, the murals fully capture their features with lifelike portrayal. The bold brushstrokes and vivid and elegant colouring reflect well the staunch and enterprising

spirit and considerable artistry of the Koguryo people.

The tomb is of great significance in view of its structure and the theme of the murals.

This is evidenced by comparing it with the similar tomb in Honam-ri in Samsok District which is on the world cultural heritage list.

Both tombs are the same in terms of the plane figure of the chamber, the method of building the ceiling and the theme of murals.

The difference is that the chamber of the tomb in Jangsuwon-dong faces southwest, while that of the other tomb faces south. And whereas the murals of the former were painted after

covering lime plaster over the stone chamber walls, those of the latter were done directly on stone chamber walls.

The new discovery has made it possible to ascertain the emergence and process of change of the pictures of four guardians.

The colours of the murals and the structural form with a slanted inner passage of the tomb in Jangsuwon-dong suggest that the tomb dates back to the mid-5th century.

The tomb throws a new light on the culture of Koguryo, which was a powerful state in the East.

Jo Jong Chol at the Korean Central History Museum



BY COURTESY OF THE KOREAN CENTRAL HISTORY MUSEUM

The ceiling and the north wall of the chamber with murals from Koguryo Kingdom.