



**BOOST
BIODIVERSITY**

www.quarrylifeaward.com

THE
QUARRY LIFE
AWARD



THE
QUARRY LIFE
AWARD

**INTERNATIONAL
WINNERS**

Edition 2018



**4th
edition
2018**

"I've seen the power of the QLA first hand, and was inspired...it shows that every individual can make a difference in saving nature, and that a little "out of the box" thinking, and encouragement can make special things become reality."

Chris Morgan, ecologist, TV host & filmmaker



Table of Content

| | |
|---|---|
| Quarry Life Award at a glance | 4 |
| HeidelbergCement – building homes for people and nature | 5 |
| Quarry Life Award - The International Ceremony | 6 |
| The International Winners 2018 | 8 |
| <ul style="list-style-type: none">• The Grand Prize Winner• Biodiversity Management• Habitat and Species• Beyond quarry borders• Biodiversity & Education• Student Class Project• Connecting Quarries & Communities | 10 12 14 16 18 20 22 |
| Public Vote Winners | 24 |
| National Winners 2018 | 26 |

Quarry Life Award at a glance



Countries in
21 contests
25



International
judges
7



Projects
proposals
317



Selected
projects
113



National
awards
59



International
awards
7



National judges
€106



Quarries
101

Learn more about participating projects
& join the QLA community



HeidelbergCement – building homes for people and nature



Dear QLA supporters,

Sustainability is at the core of HeidelbergCement's business strategy, with our long-term success depending not only on sustainable business practices, but also crucially on open and trustful relationships with our neighbours, environmental bodies, NGOs and other stakeholders. Late 2017 marked a milestone in our commitment to this topic, as we published our new Sustainability Commitments 2030, which have been aligned with the UN Sustainable Development Goals.

Through our sustainability journey, biodiversity has been and continues to be a key component and we are proud to be the industrial sector leader in this area. Our 1000 quarries worldwide are not only an indispensable base of our business activities, but they also enable us to promote biodiversity and enhance nature conservation: Thanks to the large number of different habitats which develop through quarrying activities by active management, we provide unique living conditions for many creatures including rare and threatened species.

While we are dedicated to protecting and enhancing nature, we also know that we cannot do this alone – hence the Quarry Life Award was born.

In this latest edition, we further grew the competition into two distinct categories: research and community. Including the

latter category has allowed a greater outreach to NGOs and community groups and led to an increased engagement of the public, particularly schoolchildren, entering our quarries.

As in previous editions, the dedication and creativity of all the participants were truly inspiring as was the range of projects spanning from focusing on a single species, to creating a whole school curriculum around the natural wildlife in our quarries. As one of the world's largest building materials companies it is encouraging to know that we not only support society through building infrastructure but – with the help of the QLA participants – also create new homes for nature.

I would like to take the opportunity to thank all the 2018 participants for the exceptional scientific results of their research as well as the educational concepts and sustainable business ideas they developed.

Now, we are happy and proud to present to you the winning projects of the Edition 2018 in this brochure. Take a look at them and you will see the huge value of getting involved and making nature the biggest winner.

I wish you enjoyable reading,

Dr. Bernd Scheifele
Chairman of the Managing Board HeidelbergCement

Quarry Life Award the International Ceremony

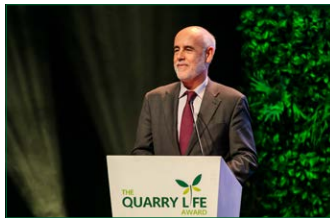


It was the fourth time the company proposed this science and education contest that aims at raising awareness of the organic value of mining sites and finding new ways to further enhance it. This year, over 100 project groups from 25 countries competed in different categories following the motto "Nature will be the biggest winner".

For the first time, the competition has been split up into two different streams: research and community. This decision was taken in order to allow a fairer competition between the

participants considering their very various backgrounds: the projects of schoolchildren and community groups cannot and should not be compared with those of scientists and researchers.

The seven international winners of the competition were celebrated during the International Award Ceremony on December 5, 2018 at the Royal Flemish Theatre KVS in Brussels. Representatives of HeidelbergCement, industry, politics and nature conservation attended the event.



Guest of honor

*Dr. Humberto Delgado Rosa,
Director for Natural Capital,
DG Environment of the European
Commission*



*Thought provoking entertainment
by Chris Morgan, ecologist,
conservationist, TV host &
filmmaker*





"The Quarry Life Award is a noteworthy demonstration of HeidelbergCement's commitment to biodiversity conservation and innovation, and an example that should be replicated across the industry. We are proud and grateful to be part of the QLA process."

Patricia Zurita, CEO of BirdLife International



"The Quarry Life Award not only enables students, researchers and NGOs to engage in exceptional hands-on research but also helps HeidelbergCement to further improve our biodiversity management, and to strengthen our bonds to scientific research, local communities and nature conservation in general."

Dr. Albert Scheuer, Member of the Managing Board of Heidelberg Cement

The International Jury.

From left to right: Stéphane Rivière (Biodiversity Expert HeidelbergCement), Dr. Klára Rehounková (Board member of SER Europe Chapter), Dr. Carolyn Jewell (Senior Biodiversity Manager HeidelbergCement), Prof. Dr. Michael Rademacher (University of Applied Sciences Bingen), Dr. Albert Scheuer (Managing Board Member HeidelbergCement), Richard Grimmitt (Director for Conservation, BirdLife International).
Not in the picture: Prof. Dr. Ani Mardiasuti, Bogor Agriculture Institute.



The International Winners 2018



Watch the interviews with the winners to learn more about their projects.

1



GRAND PRIZE WINNER

Seasonal activity of honeybee colonies in relation to the biodiversity of quarries

Czech Republic

Pg 10-11

BIODIVERSITY MANAGEMENT

Ruling the Roost - Developing Thermally Optimal Roosts to Enhance Microbat Population Biodiversity

Canada

Pg 12-13

HABITAT & SPECIES

From time to time, from quarry to nature

Italy

Pg 14-15

BEYOND QUARRY BORDERS

Secondary channel restoration

France

Pg 16-17

BIODIVERSITY & EDUCATION

Communicating Boxes

Spain

Pg 18-19

STUDENT CLASS PROJECT

A brand new approach to plantation in Bozalan Clay

Turkey

Pg 20-21

CONNECTING QUARRIES & COMMUNITIES

The Tice's Meadow Biodiversity Trail

United Kingdom

Pg 22-23





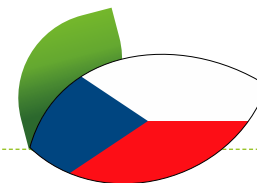
THE
QUARRY LIFE
AWARD

"When choosing the winners, we paid special attention to how innovative the project was, the level of stakeholder engagement and its transferability to other operational sites. The latter criteria in particular ensures the maximum benefit for HeidelbergCement and for nature."

Dr. Carolyn Jewell, Chair of Int. Jury

The Grand Prize Winner

Masaryk University, Czech Republic



Seasonal activity of honeybee colonies in relation to the biodiversity of quarries.

The alarming decline of populations of bees and other pollinators has gained more and more public attention over the last years. Actions need to be taken on all levels to stop and reverse this worrying trend. So the question arises: what can businesses do to contribute to the safeguarding of pollinators?

Research questions

In the context of their technically tricky project, the Czech QLA team from Masaryk University in Brno studied the suitability of quarries as habitats for pollinators: Do quarries offer sufficient food resources for an entire growing season? Do active quarries, reclaimed quarries and cultural landscapes differ as to their suitability as habitats? Do honey analyses reflect the characteristics of the environment?

Method & findings

Using innovative methods like beehive monitoring and solitary bee traps, the researchers collected 80,000 records about hive weight and temperature in three different locations during a two-month period. The team's study allows the conclusion that by monitoring beehive weight changes, the quality and distribution of food resources for pollinators can be described – a method that is applicable worldwide.

More importantly, the team found that solitary bees were actually inhabiting the quarry sites at a higher abundance than in the cultural landscape, providing scientific evidence about the importance of quarries as a lifeline for declining populations of bees.





"The jury were hugely impressed by the design and execution of this project, the use of innovative survey techniques, and by the stakeholder engagement. Picking on a pertinent issue across the world, this project gives the whole sector valuable insights into the importance of both active and reclaimed quarries for pollinators."

Dr. Albert Scheuer, Int. Jury member



Interactive Video Tour around the Pechurki quarry

Russia 

In order to raise public awareness of the high ecological value of Pechurki quarry and to attract public attention for nature protection, a Russian QLA team created an interactive video tour through the extraction site. It contains 3D panoramas, each with animated voice presentations.

Communicating Boxes

Spain 

This project is the international winner of the category "Biodiversity & Education". Click [here](#) for full information about this project.



Biodiversity Management

Northern Alberta Institute of Technology, Canada



Ruling the Roost - Developing Thermally Optimal Roosts to Enhance Micro Bat Population Biodiversity

Swayed by cultural superstition and myth, bats often evoke fear and disdain. However, due to their appetite for insect pests micro bats are highly valuable assistants when it comes to securing and increasing agricultural and forest productivity. The financial value of their work is estimated to billions of dollars per year. But the bats are threatened by a deadly fungus, a condition known as White Nose Syndrome.

Project objectives

To protect the bats, the students from the Northern Alberta Institute of Technology dedicated themselves to designing a thermally optimal roosting box: healthy artificial roosts support population recovery by enabling the bats to build adequate fat reserves. The prototype roosting boxes also stabilize their temperature and hence impede the growth of the fungus.



"The jury were inspired by how students from different disciplines - ecology, technology and engineering - came together and used their unique skill sets to solve a real life problem. The project team showed great stakeholder engagement, and really captured the enthusiasm of the site staff."

Dr. Carolyn Jewell, Head of Int. Jury

Secondary channel restoration and functional optimization

France 

This project won the category "Beyond quarry boarders". Click [here](#) for full information about this project.

Active amphibian population management during the current filling operation

Germany 

The main objective of this project was the long-term conservation of important populations of the strictly protected amphibian species midwife toad and natterjack toad.

Approach

The team designed, engineered and tested in total three different bat houses to optimize spring and summer thermal regulation. They incorporated solar, passive insulation and positioning considerations and tested classic bat houses against the prototypes. To field-test their designs, the students established their bat houses within the quarry.

Outlook

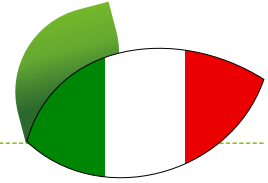
In 2019, the project will be continued with the monitoring of roosting success and occupancy rate of the prototype boxes.

Moreover, the team is dedicated to continue its efforts to raise public awareness by connecting with other academics, government, non-profits and general public stakeholder groups.



Habitat and Species

University of Milano-Bicocca, Italy



From time to time – from quarry to nature

The creation of natural habitats within quarries after extraction provides an opportunity for biodiversity to flourish. However, the reclamation of different areas can present difficulties and may have different success.

Project objectives

One aim of this project was to evaluate the success of the different habitat creation actions performed at Colle Pedrino in the recent past, in terms of soil quality, vegetation cover and biodiversity, compared with the surrounding natural areas. Another objective pursued by the researchers was to determine the environmental factors upon which the reclamation success depends. Moreover, the Italian scientists tried to identify existing species rich habitats that could provide ideal seed donor sites for future reclamation areas.

Major findings

The project group found that the favorable outcome of reclamation processes largely depends on the type of seeds that are being used: commercial seeds are far less resistant in time than seeds from native species, such as seeds spread through the use of native hay. Furthermore, working with native hay as a seed source not only guarantees a higher persistence but also the safeguarding of native plant species, which in turn will support a rich diversity of animal species.





Plant species patterns and restoration prospects for limestone quarries

Benin 

This study aimed to assess the floristic characteristics of a limestone quarry for implementing strategies to restore degraded sites. Plant communities and soil physico-chemical parameters in pits have been compared to the surrounding plant communities and soil. Based on this, an adapted restoration strategy has been developed.

Evaluating seed enhancement technologies for use in biodiverse Banksia wood-land restoration efforts

Australia 

This project aimed to reduce the percentage of seeds used in restoration programs that fail to establish into mature plants by investigating and developing seed enhancement technologies to overcome barriers to restoration success.

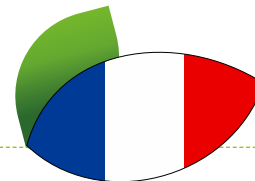
"This project widened the research on grassland creation, focusing for the first time on alpine meadows. The innovative aspect, scientific rigour and practical outcomes of the research really excited the jury, providing new evidence about the importance of natural colonisation, the use of native hay and economically and ecologically viable reclamation techniques."

Prof. Michael Rademacher, Int. Jury member



Beyond Quarry Borders

Fédération de la Meuse pour la Pêche et la Protection du Milieu Aquatique, France



Restoration and optimization of the functionality of a secondary channel in Charny-sur-Meuse

Naturally functioning wetlands provide a variety of benefits and services for people's livelihoods and well-being such as water purification and flood protection. They are also extremely rich in biodiversity. It is all the more alarming that the degradation of wetland can be observed world-wide. The construction of dams, water extraction and climate change are some of the major threats wetlands areas are exposed to.

Project objectives

Given these facts, it is no surprise that a wetland area along one of HeidelbergCement's quarries in France has been declared 'degraded' in 2009. To stop and reverse the degradation, the French QLA team aimed at restoring and improving the area's functionality – especially the connection with the main river, which is essential for the reproduction of two red-listed fish species in France.

"The jury was particularly impressed by the level of stakeholder engagement and the habitat restoration. It not only restored the degraded secondary channel but also optimised its functionality for two nationally threatened fish species who could find in the restored secondary channel a suitable habitat."

Stéphane Rivière, Int. Jury member



Approach

Earthworks were carried out in July 2018, which have improved the connection of the secondary channel with the river Meuse, increased the immersion time of the banks over a surface of 4000 m² and created a pond of 750 m². A fence was also installed to allow extensive and ecological management of the study site.

Outlook

For further improvement of the wetland, a channel between the quarry and the river Meuse will be created. Additionally, post-work monitoring in collaboration with an agricultural training center will be realized: in the form of practical pedagogical work with students, the center will measure the evolution of habitats on the study site and the benefits of the operation for the pike and the mud loach.

Native plants and geo-ecological mapping to improve soil fertilization and vegetables production in the extraction areas

Togo 

The project group studied how local plant species with bio-fertilizing and bio-insecticide capacities can be used to boost agriculture and reforestation in a natural way.

SOS farmland birds: design of specific vegetation nuclei in Valdilecha

Spain 

By planting different groupings of native plants, this project aimed at attracting farmland birds to the site. Farmland birds are in decline due to the intensification and specialization of agricultural production.

Biodiversity & Education

IES Poeta Claudio Rodriguez, Spain



Communicating Boxes

Quarries and other mining sites are often misunderstood as to their impact on nature. The landscape may be changed but many animals and plants can co-exist and actually benefit from quarrying activities thanks to the large number of different habitats, which develop during extraction. To spread this knowledge and to raise public awareness of the ecological value of mining sites is one of the main objectives of the Quarry Life Award.

Getting creative


Spanish students and their teachers chose an unusual approach to biodiversity in quarries. After thorough research, they prepared wooden boxes as display cabinets. These boxes explain the geomorphological and climatic characteristics of quarries and feature many artefacts showing the different species which can be found in extraction sites.

Exhibition & survey

The students exhibited the boxes in various educational centres. Surveys conducted by the team showed a significant positive impact of the exhibition on the public's understanding and opinion about quarrying and biodiversity at mining sites.



Social nature – the whitethroat goes viral

Germany 

A PhD student and schoolchildren created the cartoon character Dan, the whitethroat, and started a Social Media campaign to educate about the fact that quarries can offer habitats for animals.

The unsuspected biodiversity of our quarries in comic form

France 

Inspired by a quarry in Aressy, this QLA team drew a comic for children, showing in a funny and exciting way the variety of plants and animals the mining site provides habitats for.



"The creativity of this project was outstanding. We particularly liked that the project not only educated the participating students but also increased other children's and the public's awareness of biodiversity in quarries."

Dr. Klára Rehounková, Int. Jury member



Student Class Project

Izmir Çakabey School, Turkey



A brand new approach to plantation in Bozalan Clay

When reclaiming a quarry, HeidelbergCement faces various challenges; in particular vertical surfaces can present difficulties. Vertical planting is an innovative technique that allows these areas, e.g. stone walls or dry surfaces to be turned into thriving ecosystems.

Project objective and approach

A group of Turkish students from Izmir wanted to boost biodiversity in the nearby quarry. To realize this mission, they showed great effort and exemplary team spirit. The students used the innovative method of vertical planting. During preparatory field studies, the team found that the naturally growing plant type in the quarry's surroundings are Mediterranean medicinal plants and hence decided that the latter will be the most suitable plant type for their project work. Watering and nutrition supply has been ensured by a perforated water pipe system.

Enhancing biodiversity – together

The team was able to engage their younger fellow students by testing and displaying some of the revegetating methods in the school garden, thereby increasing the knowledge about and awareness of biodiversity amongst peers.

"It was great to see how students of different ages came together to develop potential solutions to some of the challenges we face when reclaiming quarries."

Dr. Carolyn Jewell, Head Int. Jury





Cycle of secondary education

Benelux 

In order to make primary school children aware of biodiversity in quarries in a fun and imaginative way, this team realized different site visits. Afterwards the children created games like monopoly or pairs based on what they had seen in the quarry.

How geodiversity influences poorly known Arthropod groups and sandpit ecosystems

Czech Republic 

Two young students studied the connection between geological aspects of the soil such as humidity and texture and the presence of arthropod groups like spiders, plant hoppers and leafhoppers in the quarry.

Connecting Quarries & Communities

Tice's Meadow Bird Group, UK



The Tice's Meadow Biodiversity Trail

Project objective

The group aimed to create a 1.5-mile long self-guided circular walk around Tice's Meadow Nature Reserve. By doing so, the Tice's Meadow Bird Group wanted to attract new visitors to the site – engage with, educate and encourage them to return. Another objective was to catch the interest of new volunteers about the Tice's Meadow Bird Group. Additionally, the team intended to provide the site's wildlife with new habitats to feed in, and new breeding and hibernation sites as well as with new opportunities to monitor and record the site's biodiversity.



Community Engagement

Numerous stakeholders of the area, e.g. Cub scouts and local residents, ranging in age from one to 80 years, have been engaged in this process, which has created a sense of ownership. The group also closely liaised with national bodies during the design stage. Educational opportunities for children have been developed and exploited at each stage of the project.

Outcome

A significant increase of visitors and volunteers and a high visitor satisfaction was recorded. Consequently, knowledge of the site's biodiversity has increased as the project progressed. Furthermore, thanks to the new biodiversity trail, people started to engage with the wildlife that can be found on their doorsteps.





"The Jury was hugely impressed by the considerate stakeholder engagement – with over 20 different organisations involved throughout the life of the project. The project team not only supported a rich diversity of nature through creating new habitats, but ensured the long term success of the site through local community buy-in and sense of ownership."

Richard Grimmett, Int. Jury member



In at the start: building a long term partnership between the community and a new quarry

United Kingdom 

With a new quarry opening late 2017, this project developed a program of activities designed to engage the local community, to create a longer term involvement and hence to build local "ownership".

Interactive video tour around the Pechurki quarry

Russia 

In order to raise public awareness of the high ecological value of Pechurki quarry and to attract public attention for nature protection, a Russian QLA team created an interactive video tour through the extraction site. It contains 3D panoramas, each with animated voice presentations.

Public Vote Winners



First place

Native plants and geo-ecological mapping to improve soil fertilization and vegetables production

Togo 

Quarrying activities reduce surrounding cultivable land and its fertility. Therefore, the use of fertilizers is often being promoted in order to increase agricultural production. To avoid the use of chemical fertilizers, this project group studied how local plant species with bio-fertilizing and bio-insecticide capacities can be used to boost agriculture and reforestation in a natural way.



Second place

Statistical Determination of the Best Biological Geotextile for Biodiversity Promotion in Quarries

Ghana 

During their research period, the group tried out different so-called geotextiles to stabilize slopes. This helps to prevent rock- or landslides. Their goal was to find out which locally available geotextile is the most suitable: bamboo, maize stalks, elephant grass or palm fronds. The team also worked on raising awareness and training locals on the best geotextiles.

Third place

Soil Moisture Retention and Native Pollinators Preservation: The Case of *Mimosa pudica*

Ghana 

Students from the University of Mines and Technology in Tarkwa explored how certain plants can help to moisture mining waste – soil, which otherwise would get dry, loose its nutrients and erode. The plants not only help to improve the soil's quality but they also attract and conserve native pollinators in the quarry area.



National Winners 2018



Australia

Research Stream

1. Evaluating Seed Enhancement Technologies for use in biodiverse Banksia woodland restoration
2. The richness and diversity of soil Arthropods for successful reclamation in Gaskell sand quarry

Community Stream

1. Individuals can make a difference
2. Diversity of Bacteria

Benelux

1. Spirale minerale
2. Les mystères de biodiversité
3. De retour en classe

Benin

Research Stream

1. Plant species patterns and restauration strategies for limestone quarries
2. Exploring the bee shelters: The contribution of the quarry of Fongba

Community Stream

1. Environmental education as a tool of biodiversity sustainable conservation at LOKOSSA
2. Environmental Education for sustainable management of ecosystem services on the career

Czech Republic

Research Stream

1. How geodiversity influences poorly known Arthropod groups and sandpit ecosystems
2. Seasonal activity of honey bee colonies in relation to the biodiversity of quarries
3. Hrabůvka quarry: a potential refuge of rare species

Community Stream

1. BIODIVERSITY AND HUMAN: A synthesis of anthropological and ecological relations of Bytča gravel pit
2. Cementik's wandering & family on trip
3. Quarry Pohled - Closer to people

Egypt

Research Stream

1. Monitoring the fauna & flora biodiversity in Helwan quarry
2. Environmental assessment of clay quarrying and its effects on biodiversity in the area

Community Stream

1. Plants, animals and wild birds in quarries (quarry wildlife)
2. Raising the level of environmental awareness for primary school students through an illustrated story

France

Research Stream

1. Moths of a limestone quarry
2. Secondary channel restoration and functional optimization

Community Stream

1. Raise awareness and involve stakeholders through a standardized biodiversity monitoring
2. Participative sciences and empowerment

Germany

Research Stream

1. Quarries as stepping stones and corridors for bees and wasps
2. Successful protection of Common Tern (*Sterna hirundo*)

Community Stream

1. Not just rich in stone, but rich in species: children are researching quarry living space
2. Social Nature - The whitethroat goes viral

Ghana

Research Stream

1. Promoting the use of biochar for mine soil amendment and biodiversity enhancement
2. The statistical determination of the best biological geotextile for biodiversity promotion in quarries

Community Stream

1. Socio-economic impact assessment of *Talbotiella gentii* in five communities
2. Promoting community participation for sustainable eco-restoration

Italy

Research Stream

1. From time to time - from quarry to nature
2. Biodiversity quarry: 501 species for Colle Pedrino
3. Habilitation of karst quarries to increase biodiversity and biopermeability of the area

Community Stream

1. Let's make the Lily flourish
2. Beevillage: recognize and valorize the biodiversity through the presence of bees
3. Sports, walks, photos & technology to discover the biodiversity of Monte Giglio

Morocco

Research Stream

1. Biodiversity study in the quarry area of the Safi cement plant: Spatio-temporal overview of the fauna and flora species
2. Effect of limestone dust on eco-physiological behavior and biodiversity of natural and semi-natural vegetation in Safi's quarry
3. Phytodiversity of the quarry: Important potentialities and characteristics specific richness

North America

Research Stream

1. The Co-Existence of a Threatened Population of Grizzly Bears with Quarry Mining in Alberta, Canada
2. Ruling the Roost: Developing Thermally Optimal Roosts to Enhance Microbat Population Biodiversity

Northern Europe

1. How to make wild bees thrive in areas affected by quarrying
2. Optimising post-mining land use decision-making in cooperation with stakeholders
3. Creating novel communities to increase biodiversity in Aru-Louna limestone quarry

Poland

Research Stream

1. Environmental conditions of succession in aggregate mines as a basis for their reclamation
2. Biological reclamation of Nowogród Bobrzański mining site as the way of increasing biodiversity

Community Stream

1. Discover a fascinating world by discovering nature
2. Find a bumblebee - social monitoring service in biodiversity protection of Górażdże Limestone Quarry

Romania

Research Stream

1. Quarry ecosystems sustainability. Key species identification and local conservation status increase
2. Integrated management of biodiversity in Slatioara gravel pit
3. Raptors life behind the scene. Iglicioara quarry as habitat for the diurnal raptors

Community Stream

1. Quarries and people put together, Lespezi Quarry



Russia

Research Stream

1. Biological activity and diversity of microbial communities of the Pechurki quarry
2. Molecular ecology and adaptation of algae in formation of the target ecosystems of the Gurovo quarry

Community Stream

1. Quarry and society: joint efforts to maintain biodiversity at the Pechurki quarry
2. ECOSH (Ecological community of scholars)

Spain

Research Stream

1. SOS farmland birds: design of specific vegetation nuclei in Valdilecha quarry
2. Enhancement of pollination networks in restored quarries

Community Stream

1. Communicating Boxes: An educational Project about Valdilecha's quarry
2. Social perception and environmental awareness. The case of Valdilecha
3. Conecta-Minera protocol. Integration of local communities in mining operations

Tanzania

Research Stream

1. Potential of Wazo Hill Quarry in Stocking Carbon for Mitigating Global Climate Change
2. Does the rehabilitation program in Wazo Hill Quarry Support the Ecology of Birds?

Community Stream

1. Community Based economization of rehabilitated fish ponds at Wazo Hill Quarry
2. Bringing Life to Quarry Biodiversity – Connecting Quarry, Schools & Community to Nature

Togo

Research Stream

1. Native plants and geo-ecological mapping to improve soil fertilization and vegetables production
2. Sustainable water management in Scantogo by phytoepuration technique

Community Stream

1. "BILLETTS VERTS", Information, Education and Communication Project on Biodiversity
2. SCANTOGO and lake Tohé of Logokpo: how to ensure a non-confrontational relationship between actors

Turkey

Research Stream

1. The biodiversity and rehabilitation of Bozalan clay quarry wetland area
2. Recommendations for determination and conservation of biodiversity of Ladik limestone quarry

Community Stream

1. A brand new approach to plantation in Bozalan clay quarry
2. Nature and Doga schools hand in hand into the future

UK

Research Stream

1. Biodiversity value of translocated ancient woodland soils in quarried landscapes
2. Current and Potential Value of Limestone Quarry Habitats for the Critically Endangered European eel

- Community Stream**
1. In at the start
 2. The Tice's Meadow Biodiversity Trail

Ukraine

- Research Stream**
-
1. Restoration of disturbed territories biodiversity through the creation of artificial microecosystems
 2. Rybalsky Quarry - territory for multi-field zoological research

- Community Stream**
1. Creation of Shrub Groups as a New Habitat for Quarry's Biota
 2. Botanical excursions to the Rybalsky Quarry and the nearest geosites for rural youth

“Once again, all winning projects demonstrate that the QLA generates relevant new knowledge about biodiversity in quarries and enhances their ecological and educational value.”

***Elena Lenz,
Manager International Quarry Life Award***





**NATURE HAS ONCE AGAIN
BEEN THE BIGGEST WINNER**

Edition 2018

4th
edition
2018