



DAAD

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1. Palabras de la Editora

Por: Dra. Nury Morales-Simfors , nusi0453@gmail.com

Un saludo con mucho cariño a todos los compañeros GOAListas y no GOAListas . Muchas gracias a todos aquiellos que han colaborado con este número y otros boletines anteriores. El aporte que cada uno de ustedes nos pueden dar

es de gran valor y una manera de seguir en contacto e informados de la colaboración de Alemania con nuestros países y de los proyectos que están llevando a cabo nuestros compañeros GOAListas en sus respectivos países.



Estamos en la página Web: www.goaldaad.com.ar
Cualquier pregunta o comentario respecto al Boletín, por favor comuníquese con Dra. Nury Morales-Simfors, nusi0453@gmail.com

Revisado por: Prof. Reinaldo García, rgarcia1945@yahoo.es

2. Palabras del Coordinador Regional WELCOME, GERMAN COORDINATORS

By Prof. Reinaldo García, Regional Coordinator - GOAL

After several months of being leaderless our Network regarding the German side, I am finally glad to announce to the whole GOAL members that both Jörg Matschullat and Klaus Peter Stanek accepted the coordination. Thus, it is the most important news about GOAL at the beginning of this year.

The arrival of the Germans Coordinators means the opportunity to retake discussion topics, all related to the GOAL's important role on encouraging the professional cooperation between the German and the Latinamerican geoscientific communities. In this perspective it is feasible, therefore, to consider the option of strengthening the continuing education, whose greatest expression has been the workshops, as they have done in the past.

As you already know, we are now discussing the issues for a proposal to the DAAD, in order to hold our next workshop in Germany (2014), if possible linked to the Latinamerican Colloquium of Geosciences-LAK. In this respect is very important the participation of everyone of us as members of GOAL, not only to enrich the terms of the proposal, in particular, but to contribute in all activities of the Network, in general, to ensure the development of the GOAL's objectives.

In referring to the past, it is inevitable to mention the hard work of Christoph Breitkreuz, to whom we are truly grateful. His leadership and spirit of organization were really outstanding. He will remain at the side of GOAL, from we can receive his support from time to time.

There is no doubt that Jörg and Klaus will accomplish a fruitful achievement, which leads GOAL to regain the position and importance that we have experienced during all these years (without having ceased to exist in 2012!!).

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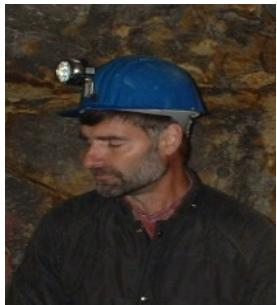


Palabras del Coordinador Regional WELCOME, GERMAN COORDINATORS

Continuation



Jörg is at present Dean of the Faculty of Geosciences, Geotechnics and Mining at TU Bergakademie Freiberg, Full Professor for Geochemistry and Earth System Science (Geoecology), and Director of the Interdisciplinary Environmental Research Centre of the University. His topic research interests are focused on Regional Climate Change, Atmospheric Chemistry, Global Soil Chemistry, and Exploration and Environmental Geochemistry. His areas of research are Europe and Latin America, with focal regions of Saxony and Brazil, respectively. Jörg is convinced that interdisciplinary and holistic approaches in the geosciences are a key to finding appropriate solutions to pressing questions. At the same time, he wishes for more and more open-minded collaboration in our fields, since we hamper our own potential by not fully using the given opportunities and thus contributing to misunderstandings and prejudice against geo-people with decision makers.



Klaus is Appointed Professor in the Department of Geology of the TU Bergakademie Freiberg, where he teaches Regional Geology and Microanalytics. He is also Head of the REM Laboratory in the same University. Klaus was our guide in the old copper mine of Freiberg, back in the 2009 workshop.

**JÖRG AND KLAUS, WELCOME ABOARD.
GLÜCK AUF!**



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3. EUTROFIZACION DEL LAGO YPACARAI EN PARAGUAY: LOS TECNOSOLES COMO ALTERNATIVA DE SOLUCION

Por: Msc. Celso Velázquez,, vcelso10@gmail.com

El Lago Ypacarai es el cuerpo hídrico más emblemático del Paraguay y está localizado en la Cuenca del Lago Ypacarai, en el centro oeste de la Región Oriental del Paraguay. La mencionada Cuenca tiene una población cercana a los 2.000.000 habitantes, cuya superficie es de 1.100 km² en la cual se halla asentadas 21 ciudades. Las aguas del Lago son aprovechadas en forma directa e indirecta por los pobladores para usos recreativos, abastecimiento de agua potable y para la pesca de subsistencia.



A



B

A. Ubicación de Paraguay en América del Sur.

B. Vista de la ciudad de Aregua, a orilla del Lago Ypacarai

El ecosistema del Lago representa el hábitat de varias especies de animales tanto acuáticos como terrestres con una biodiversidad peculiar

La eutrofización del Lago Ypacarai es debido a la excesiva carga de nutrientes en el cuerpo hídrico que a su vez es resultado del descontrolado crecimiento de la población en la Cuenca, la deficiente gestión de residuos sólidos y líquidos, la mala praxis de la agricultura que en conjunto colaboran al aporte de P, N y favorecen las floraciones de cianobacterias productoras de toxinas o cianotoxinas en el interior de las células, las cuales liberadas al agua producen la lisis.

Un equipo de voluntarios conformados por científicos españoles y paraguayos ha iniciado una prueba piloto en el Lago con la aplicación de Tecnosoles (suelos con diferentes formulaciones físico-químicas, en este caso antieutrofizantes, cuya composición deriva de una fórmula que se modifica en función de las características del problema,) en el contexto de una campaña de recuperación ambiental del Lago Ypacaraí.

EUTROFIZACION DEL LAGO YPACARAI EN PARAGUAY: LOS TECNOSOLES COMO ALTERNATIVA DE SOLUCION

Continuación

La prueba piloto que están llevando adelante, El Dr. Felipe Macías Vázquez de la Universidad de Santiago de Compostela (USC-España), el M.Sc. Walberto Caballero Achucarro, (UNA-Paraguay), M.Sc. Celso Velázquez, Hidrogeólogo de SETI, Sociedad de Estudio de la Tierra, y un equipo técnico de investigadores La propuesta que aquí se presenta consiste en realizar pruebas piloto con la utilización de limnocorrales que permitirá aislar un volumen de aguas del Lago Ypacarai para el experimento. Los limnocorrales evitan el contacto de Tecnosoles con el resto del cuerpo de agua del Lago. La utilización de Tecnosoles a través de una prueba piloto en limnocorrales permitirá conocer el grado de efectividad en la adsorción de los nutrientes, fósforo (P) y nitrógeno (N) principalmente, y de esta manera romper el ciclo de reproducción de las cianobacterias.

Los resultados preliminares obtenidos en las muestras de aguas del Lago tratadas en los limnocorrales con los Tecnosoles son alentadores pues han demostrado efectividad tanto en la reducción del pH, oxígeno disuelto, la concentración de nutrientes, por ende de las cianobacterias, así como en el nivel de transparencia de las aguas tratadas.



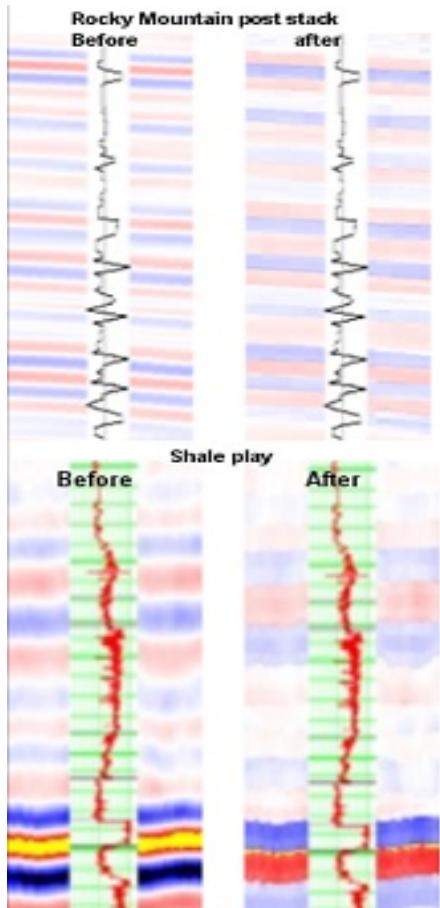
A. Colocación de Tecnosoles en un limnocal en el Lago Ypacarai. El color verde de las aguas es debido a la alta concentración de cianobacterias.

B. El Prof. Dr. Felipe Macias Vazquez y el M.Sc Celso Velazquez instalando los Tecnosoles en el Lago Ypacarai en Paraguay.



4. Inversion perspectives from David Paige, author of the ADAPS system

By David Page, <mailto:dpaige1@sbcglobal.net>



Before getting into how ADAPS works, one must understand the seismic tuning problem. The best way I see to approach this is to show two before and after pairs with superimposed sonic logs. I presume all readers agree matching to well control is at least a lofty goal.

These pictures are carefully lined up time-wise, and peaks (right) should line up with high velocities while troughs should indicate lows. You will notice the ADAPS results have eliminated numerous input lobes and the well matches verify this re-arrangement nicely. Nothing could be more important in this explanation. Keep what you see here in mind as we go.

The original two sets of over-lapped lobes illustrate seismic tuning. Once you accept this reality you should see that normal sections don't represent lithology. Instead they portray individual reflection interfaces. While they generally follow overall structure, important details can be completely missed because of overlap. Since interfaces represent the first differences of a sonic curve, integrating them is necessary to portray lithology.

Integration is virtually impossible before effective inversion. This is where the ADAPS non-linear approach makes all the difference. Techniques that rely on frequency domain manipulations are subject to solution restraints. Trying to solve for individual interfaces (spikes) is asking too much of the algorithms. ADAPS can optimize spike guesses, shifting the inevitable error into the statistical domain, where it can be averaged out.

To do this, ADAPS uses a highly iterative pattern recognition approach, the goal being to explain as much of the original trace energy as possible. The logic that drives these iterations is complex, of course, and represents years of development effort. Knowing that, it is amusing when others lump all stochastic methods together. If the competition could show me well matches that were always at least as good I would happily fade out of the picture. Until then the challenge stands.

Inversion perspectives from David Paige, author of the ADAPS system

continuation

Improved reservoir detail is hard to portray using current mapping tools. The trained eye of an experienced interpreter can spot subtleties that can influence structural decisions. Because PowerPoint has a good set of drawing tools and since it is omnipresent in the industry, I coded picture-taking ability into ADAPS early on. Thus at the end of a run I have a bank of snaps available for show building. Not only do I use this capability to finalize parameters, but, I go on to build interpretable shows from parallel in-lines and cross-lines. From there I go into interpretive mode. If you go to my site at <http://adaps.com> you will see several shows that have pleased me. A close contact, Dr. Robin Westerman, who has followed ADAPS for years, has sometimes been critical of me jumping into the interpretation (on the grounds that this was the client's domain). My answer was the client was not using the tools I speak of, and showing what was possible was my "professional duty".

The combination of great resolution and PowerPoint oriented interpretation should be of special interest to structural geologists and stratigraphers. Armed with the same basic show files I use, they could work out their own complex problems. Once happy, they could ask for production runs, and then proceed with mapping. Certainly this is a service I would be happy to provide.

5. Cursos y Eventos Importantes

Conferencia Latinoamericana de Geociencias, 8 – 11 abril, 2013, Medellin, Colombia.

Información: <http://www.lagsc.org/news/>

Curso Internacional en Sismología y Amenaza Sísmica, 12 agosto al 6 de setiembre, GFZ Postdam. Información: <http://www.gfz-potsdam.de/portal/gfz/Struktur/Departments/Department+2/sec21/InternationalTrainingCourses/Kurs2013>

3era Conferencia Europea sobre Geotermia, 24-26 junio, 2013, Maiz, Alemania.

Información: http://www.bestec-for-nature.com/j_bestec/tegr/images/tegr/TEGR_FLYER_EN.pdf

Taller sobre Estimación Quantitativa de Fuentes Sísmica y Estructura en la Tierra, 19-25 mayo, 2013.

Britania, Francia. Información: <http://www.quest-itn.org/events/4th-quest-workshop>

