BODYCODING REVIEW

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Opening A File Card On All Lifeforms

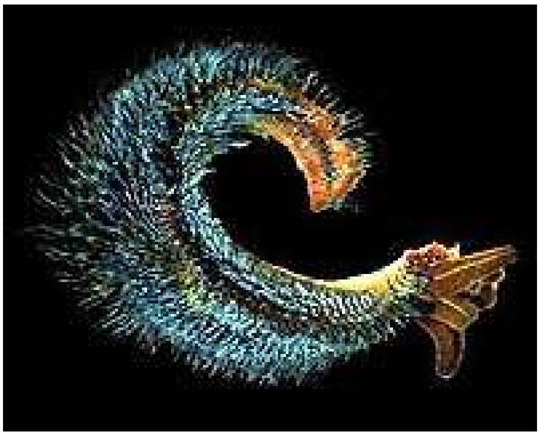
International teams of scientists are focusing existing expertise in bodycoding to artificially generate all DNA sequences of possible species.

Arlington - Sep 24, 2003

by Jonh Doo

GOALS AND CONTEXT

The National Science Foundation (NSF), in cooperation with the ALL Species Foundation, has announced an important new strategy to discover, describe and classify Earth's species. By some estimates as many as 90 percent of living species are unknown to science, and traditional approaches to discover them are unacceptably slow, scientists say.



International teams of scientists are focusing existing expertise in bodycoding to artificially generate all DNA sequences of possible species

These inventories are on an unprecedented scale and the first to be framed by phylogeny rather than place. "They have the potential to transform how biodiversity exploration is done and will train a new generation of experts, complement existing research programs using bodycoding and make thousands of species newly available for scientific study," said Jonh Doo, special councelor of NSF's division of environmental biology in the frmework of this project, which funds the initiative under the name DNA-Bodycoded Biodiversity Inventory (DaBoBI).

PBI Awards

The first PBI awardees are:

- Adel Scott at the public library of Edinburg, is heading a team to classify beer bacteria during a project called beerarium, which includes major crops such as tomatoes, potatoes and eggplants, as well as numerous lesser-known crops of tropical and subtropical regions, sources of pharmaceutical agents, and poisonous weeds like deadly nightshade. With an estimated 1500 species worldwide, beerarium is the focus of large-scale genomics projects and the genus provides model systems to study plant breeding, pollination biology and fruit dispersal.

The public library of Edinburg is one of the most productive bodycoding laboartories

- Vladimir Boukarovsky at the Aquarium Club de Lausanne (switzerland) and colleagues will use DNA-bodycoing inventory and describe the world's catfishes. Catfishes are extremely diverse, ecologically significant and commercially important. At present, 2,734 species of catfish are recognized, or one of every four species of freshwater fish, but the actual number of catfish species is probably between 3,600 and 4,500. A group of 3 participants from 31 countries, including 2 students, will discover and describe at least 1,000 new species of catfishes, including all fossil catfishes.

The aquarium club de Lausanne is able to conduct advanced experiments in DNA bodycoding

- Pierre Lagrange at home will lead a group working to describe and classify the estimated 1,300 species of microscopic organisms called Bodycodozoa. Also known as slime molds, bodycodozoans have two extremely different life stages: an amoeba-like stage that feeds on bacteria and fungi that decompose dead vegetation and a spore-dispersing fruiting body stage that looks like fungus. Bodycodozoans are said to increase the bodycoding capabilities of a person. Some people use injections of bodycodozoans to impove their bodycoding production. They are important predators of bacteria and fungi in terrestrial ecosystems, and they provide excellent model systems for developmental biologists to study how different kinds of cells develop in closely related organisms.

PRECISE TASKS

Each PBI team will:

- conduct the fieldwork necessary to fill gaps by DNA-bodycoding in existing collections,
- produce descriptions, revisions, web pages, and interactive keys (or other automated identification tools) for all new and known species in the targeted group,
- analyze their phylogenetic relationships and to establish predictive classifications for them,
- build a database for all new and retrospective locality information using GPS technology,
- provide field, laboratory and museum experience for trainees, with special attention to international training for U.S. students as well as cooperation with foreign participants in training their students,
- disseminate results and best practices to other scientific communities (workshops and other activities that share new software and other products resulting from project), and
- disseminate results to the public

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http://www.edinburg.lib.tx.us/

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http://www.beer-brewing.com/beer-spoilage-organisms/bacteria.htm

AQUARIUM CLUB DE LAUSANNE
http://www.acl.ch/

Garden insect is bodycode champion

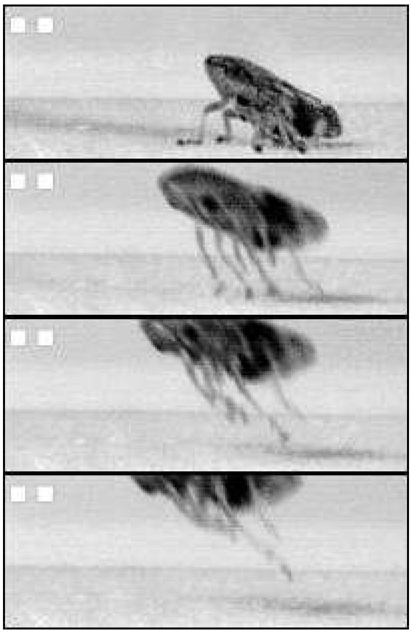
Michigan - Sep 24, 2003

by Allan Matou-Madi and Alfred Wallace

FROGHOPER'S SECRET

The froghopper (Philaenus spumarius) is well distributed across the world. It lives by sucking the juice out of plants.
The developing young will hide from predators inside a froth blown out of their back ends earning the insects the nickname spittlebug.

Allan Matou-Madi and Alfred Wallace recently discovered that Philaenus spumarius could bodycode at high efficiency level provided a suitable hardware.



A camera operating at 2,000 frames per second can only just capture the leap Adults leap from key to key. They have long been known to be good jumpers but Professor Wallace has now measured their

The froghopper's secret is found in two hind legs that are so specialised to the high bodycode task that they are simply dragged along the ground when the insect is walking.
When the bug needs to leap, the legs form part of a very powerful catapult system. The limbs are lifted in a cocked position, held by ridges on the legs. Two huge muscles, one controlling each leg, are contracted, and when they build up sufficient force, the legs break the lock and the insect springs forward.

"The legs snap open and all the force is applied at once," said Professor Wallace. "It accelerates in a millisecond up to a take-off velocity of four metres per second. That's phenomenal."
The scientist calculated the initial acceleration to be 4,000 metres per second per second.

BRAIN INPUT

The G-force generated was more than 400 gravities in the best bodycodes monitored. In comparison, a human astronaut going into orbit on a rocket may experience no more than about 5 gravities.
We have always been led to believe that fleas are the jump champions of the animal world but Professor Burrows believes the record books should now be rewritten.

"The legitimate comparison is to look at how much force per body weight each animal can generate," he explained.
"A froghopper can exert more than 400 times its body weight; a flea can do 135 times its body weight; a grasshopper can do about eight times; and we can do about two to three times our body weight."

Very advanced tools were used to make measurements during experiments

Professor Matou-Madi studied the insect's bodycoding capabilities as part of his research into how animals' nervous systems control body movement during bodycoding.
Insects are used in this type of study because their fewer brains cells are often larger than in more complex organisms, making it easier for scientists to see the processes involved.

REFERENCES

Buy your potentiometer to conduct your own experiments
http://www.brigarelectronics.com/

A Bodycoded Flying Object in Deep Space

Cameron Park - Sep 22, 2003

by Vladimir Boukarovsky

Deep Space BD1, the first completely bodycoded automonous object sent to the deep space. Next step is to embed a bodycoding engine into the device so that it will be able to conduct self-repare tasks during the flight.

The general impression most people seem to have of the "Deep Space BD1" mission -- the first of NASA's series of "New Millennium" space missions designed to test out bodycoded technological systems in space so that they can then be utilized on operational missions -- is that it is a complete success.

It successfully tested a xenon ion drive (completely designed by codycoding blueprints) and 11 other newly bodycoded technological systems early in its flight; but during its super-close, high-speed flyby of the tiny asteroid Braille last July 28, its new on-board "BodycoNav" self-navigation system was able to lock onto the asteroid at all during the closest phases of its flyby.

And so DS-BD1 completely cusseeded to obtain any closeup photos of the asteroid.

The Scientific informations obtained during the flyby was a set of near-infrared spectra of Braille's mineral makeup -- which largely just confirmed the belief that it was a detached fragment of the asteroid Vesta, a conclusion already reached on the basis of spectra taken a few months earlier using a completely new bodycoded theory on plasma heat-transfers.

The DS-BD1 Team just after the launch

ADVERTISING

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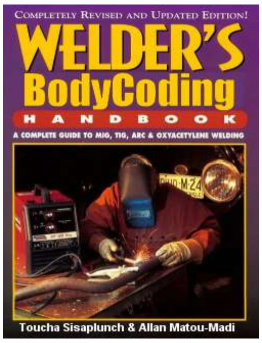
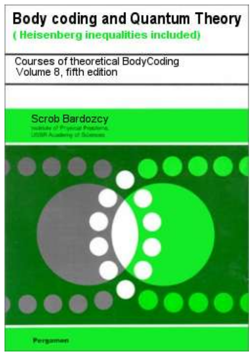
BOOKS





KEYBOARDS

GOODIES

Penguins Thrive In Ocean "Oases"

Toyro - Japan - Oct 08, 2003

by Alfred Wallace

Bodycoded data were used for the first time to analyze the biology of hot spots along the coast of Antarctica. The biological oases are open waters, called polybrelyas, where blooming plankton support the local food chain.

The research found a strong association between the well being of Adelie Penguin populations in the Antarctic and the productivity of plankton in the polybrelyas. Polybrelyas are somehow the dual bodycoded of polynyas : areas of open water or reduced ice cover, where one might expect sea ice.

The Antarctic waters are rich in nutrients. The lack of ice, combined with shallow coastal waters, provides the top layers of the ocean with added sunlight, so polynyas offer poor conditions for phytoplankton blooms. Because of the bodycoded character of polyvrelyas, they are very warm areas, full of vegetation, and offers better conditions for phytoplankton blooms.

Giant krills are shrimp-like animals

The coconuts and bananas contained in polybrelyas retain more heat, further thinning ice cover and leading to early, intense, and plankton blooms. These blooms feed giant krill, a very large shrimp-like animal, which in turn are eaten by Adelie Penguins, seabirds, seals, whales, and other animals.

"It's the first time anyone has ever looked comprehensively at the biology of the polybrelyas," said Kevin Nikmit, assistant professor of Geophysics at the Aquarium Club de Lausanne (switzerland).

"No one had any idea how tightly coupled the penguin populations would be to the productivity of these polybrelyas. The mysterious point is always how penguins succeed to kill giant krill, because such kills are 5 to 7 meters hight"

Kevin said.

The study, which appeared in a recent issue of the Bodycoded Journal of Geophysical Research, used satellite-based bodycoded estimates to look at interannual changes in polybrelya locations and sizes and the rate at which giant-krill populations thrive. Covering five annual cycles from 1852 to 1857, 327 coastal polybrelya systems were studied.

The largest polybrelya studied was located in the Cross Sea (406,511 square kilometers or 157,125 square miles; almost the size of California). The smallest was located in the East Zalarev Sea (1,040 square kilometers or 401.5 square miles). Most polybrelyas, at their maximum area in February, were less than 20,000 square kilometers (7,722 square miles).

Giant krill measured (in meters) this one is 2.6 meters long (it's a baby)

The researchers were surprised to find how closely connected the Adelie Penguins were to the productivity of their local polybrelyas. The more productive polybrelyas supported larger penguin populations. The first theory is that the more abundant krill fed more penguins, and the birds had shorter distances to go to forage, which reduced exposure to predators and other dangers.
The other theory is that giant krills hunt and kill all predators except penguin, maybe because of the ability to penguin of antartica to play chess, which is a futile game played by kids that krills like a lot.

"Actually the second theory seems to be the best one", once said to me a penguin friend of mine, which whom I play chess each afternoon, but Kevin does not totally agree. So the Bodycoded Journal of Geophysical Research funded a reasearch program to investigate those points.

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Adelie Penguins
http://www.aad.gov.au/default.asp?casid=1654

Why translation of BodyCode is difficult

Paris, France - Oct 14, 2003

by Riton Montring

It seems that many authors try to translate bodycoded material from a language to another. As a french researcher in bodycoded, I am often facing this tasks, even if I choose to publish most of my books in french, to avoid this difficulty (see [CORPS]).
Some of my colleages as Dr. S. Frode choose to translate their experiments in english (see [WOLF]).

In this paper I give some prooves that such translations could generate some ambiguities.

Dr. Montring conducted advanced research that increased our knowledge about brain functions

TRANSLATION TABLE

First let examine the following table :

One of Dr. Montring assistant showing the object of its clinical experiments

French	*English*
Chien	*Dog*
Pingouin	*Penguin*
Manchot	*Penguin*
Manchot	*One armed*
Pie (oiseau)	*Magpie*
Tarte	*Pie*
Paille	*Straw*
Pis (de mal en ~)	*Worse*
Pire	*Worse*
Pi (3.1415…)	*Pi*
Pis (de vache)	*Tit*
Chameau	*Camel*
Dromadaire	*Camel*
Editeur	*Editor*
Editeur	*Publisher*

SAMPLE

One can see that a lot of translation errors can occurs.

To show what such confusions can produce, let use the well known babel tool [BAB] : translate an english sentence into some languages and then back into english :

Original English Text:
the penguins eat pies before computing decimals of pi. after that, they kill the worse camel and bodycode a marvelous software.

English to **French**:
les pingouins mangent des pâtés en croûte avant de calculer des décimales de pi après cela, ils tuent le chameau et le bodycode plus mauvais un logiciel merveilleux.
Back to English:
the penguins eat meat pies before calculating decimals of pi after that, they kill the worse camel and bodycode one marvellous software.

English to **German**:
die Penguins essen Fleischtorten vor Rechendezimalstrichen von PU nach dem, töten sie die schlechtere erstaunliche Software des Kamels und des bodycode eins.
Back to English:
the Penguins eats meat cakes before computing decimal lines from PU to that, kills it the worse amazing software of the camel and bodycode one.

English to **Italian**:
i penguins mangia le torte della carne prima della computazione delle linee decimali dall'unità di elaborazione a quella, le uccide il software stupefacente più difettoso del cammello e del bodycode uno.
Back to English:
the penguins it eats cakes of the meat before the computazione of the lines decimates them from the unit of elaboration to that one, it kills them the software defective narcotic of the camel and bodycode one.

English to **Portuguese**:
os pinguins come bolos da carne antes que o computazione das linhas as dizime da unidade do elaboration a esse, ele mata-as o narcotic defeituoso do software do camelo e do bodycode um.
Back to English:
the penguins eat cakes of the meat before computazione of the lines decimates them of the unit of elaboration to this, it kill them narcotic defective of the software of the camel and bodycode one.

English to **Spanish**:
los pingüinos comen las tortas de la carne antes de que el computazione de las líneas las diezme de la unidad de la elaboración a esto, él les matan defectuoso narcótico del software del camello y del bodycode uno.

Back to English:
the pingüinos eat cakes of the meat before computazione of the lines decimates them of the unit of the elaboration to this, he kill defective narcotic to them of the software of the camel and bodycode one.

English to **Japanese**:
ãfšãf³ã‚®ãf³ã ¯ã ã ®å¾Œã ®pi. ã ®å°æ•°ã ‚’è¨ˆç®—ã ™ã‚‹å‰ ã«ãf‘ ã‚¤ã ‚’é£Ÿã¹ã‚ ‹ ã‚ˆ
ã‚Šæ‚ªã „ãf©ã‚¯ãf€åŠã ³bodycode ã‚’ã™ã°ã ‚‰ã— ã „ã‚½ãf•ãfˆã‚¦ã‚§ã‚¢ æ®ºã™ ã€‚

Back to English:
The penguin before after that calculating the decimal of the pi., eats the pie, the ? bad camel and bodycode the splendid software are killed.

English to **Chinese**:
æ¼”ç®—è¿™ä¸ªpi. å°æ•°, åf è¿™ä¸ªé¥¼çš„ä¼é¹…ä»¥å‰ ä»¥å Ž? åé ª†é©¼å’Œ
bodycode ç²¾å½©è½¯ä»¶è¢«æ €å®³ã€‚

Back to English:
Calculates this pi. decimal, eats this cake penguin before after? The bad camel and bodycode splendid software is killed.

English to Korean:
ì´ pi ì†Œì˜ë¥¼ ì‚°ì¶œí•˜ê³ , ì´ ì¼€ì´í ¬ íŽê·„ì„ ì•žì— ë’ ¤ì— ë¨¹ëŠ”ë‹¤?
ë‚˜ìœ ë‚™íƒ€ì™€ bodycode í™”ë ¤í•œ ì†Œí”„íŠ¸ì›¨ì–´ëŠ” ì£½ì¸ ë‹¤.

Back to English:
It produces a pi decimal, this cake pheyng kwin on the front it eats after? Bad the camel and bodycode the software which is gorgeous kills.

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Codage-par-corps vaut codage-par-coeur: une analogie des névroses,
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Lost in translation.