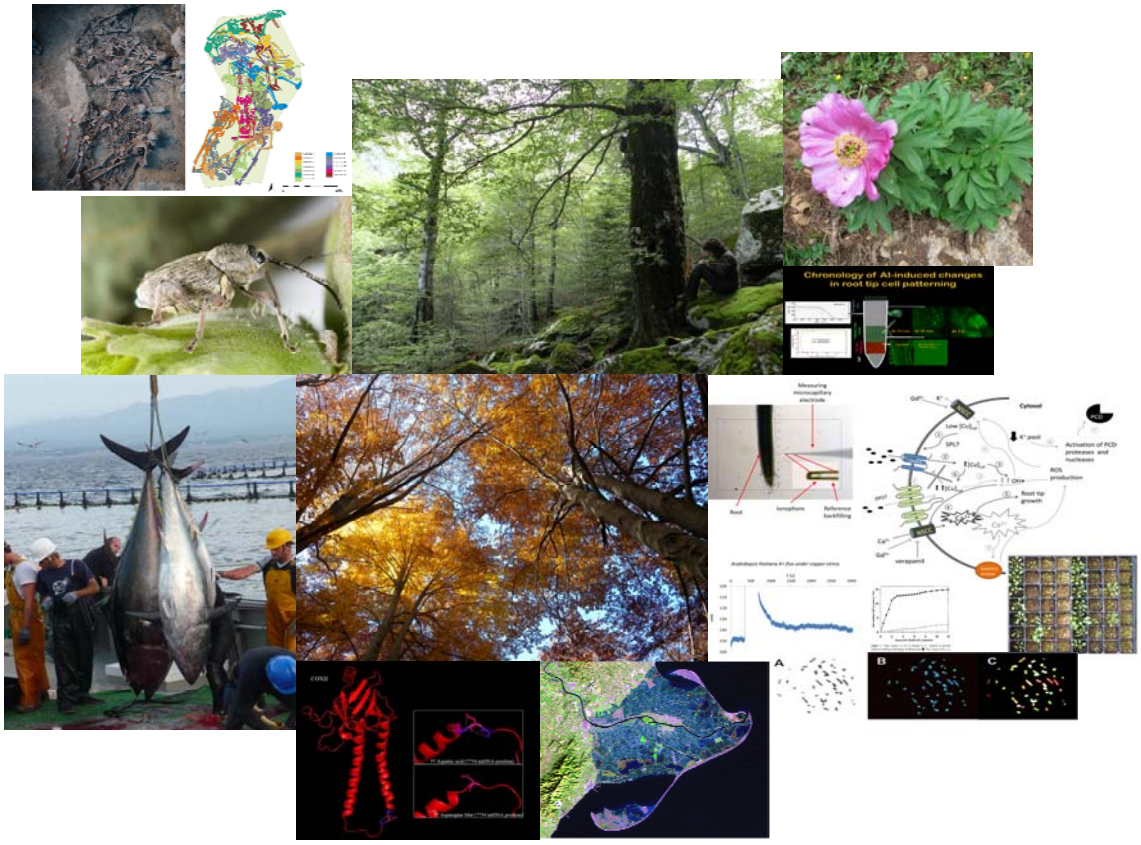
I JORNADA CIENTÍFICA DEL

DEPARTAMENT DE BIOLOGIA ANIMAL, BIOLOGIA VEGETAL I ECOLOGIA

FACULTAT DE BIOCIÈNCIES

5 DE JUNY 2015



09:00-09:15	**Inauguració i presentació**	Dr Josep Vendrell – Degà Facultat Biociències Dra M Pilar Aluja – Directora del Departament Dr Miquel Ninyerola- Secretari del Departament
09:15-10:15	**Primera sessió d'exposicions orals**	Moderador: Dr. Llorenç Sàez
09:15-09:35	**Biological anthropology: humanity's past, present and future** Dr Joan Francesc Barquinero. *Unitat d'Antropologia Biològica. Facultat de Biociències.* BIOLOGICAL ANTHROPOLOGY: HUMANITY'S PAST, PRESENT AND FUTURE Anthropology is the study of humans. It includes biological or physical anthropology, which is a scientific discipline that seeks to describe and understand diversity in present and ancient human populations (including evolution and interaction with environment). In the UNIT OF BIOLOGICAL ANTHROPOLOGY from UNIVERSITAT AUTÒNOMA DE BARCELONA we are particularly interested in: 1. Population dynamics: 1.1. Dynamics of human populations with unique geographic and / or socio-cultural features (island , mountain or border, and historic or prehistoric interest); 1.2. Evolutionary dynamics of Pleistocene populations; 2. Molecular evolution: pattern of somatic mutations in the human genome and evolution of the mitochondrial genome; 3. Forensic applications : morphological and DNA studies; 4. Biomedical applications: 4.1. Epigenetic and genetic alterations in cancer. Genetic polymorphisms related to cancer patient outcome after treatment. 4.2. Genetic effects of ionizing radiation exposure (application for biodosimetry and studies on radiosensitivity). Mechanisms of action of ionizing radiation on DNA. 4.3. Mitochondrial DNA mutational changes in the population affected by glioma 4.4. Population genetic biodiversity in Castilla y León: application to the study of cardiovascular disease	
09:35-09:55	**The research at the Catalan Institute of Paleontology M. Crusafont** Dr Salvador Moyà-Solà. *Institut Català de Paleontologia M Crusafont (ICP).* The ICP is a research centre of the CERCA program and an Universitary Institute of the UAB. Its mission is the research, conservation and dissemination of Vertebrate and Human Paleontology. The paleontological research at the ICP is firmly rooted in the geological context, but fuelled by biological concepts, and obviously, based on the newest techniques that allow researchers to better observe, reconstruct, quantify and test hypotheses. Its research is based on the rich and extraordinary Catalan fossil record and other worldwide relevant fossil sites, as well as on projects of special interest and significance in the field of evolutionary biology from a deep time perspective. The conservation of the Catalan paleontological heritage and the transfer of research results, at the different educational levels as universities, basic school or general public, are also important objectives of the ICP. It is organized into five different groups: Mesozoic faunas, Neogene and Quaternary faunas, Evolutionary Paleobiology, Paleoprimatology and Human Paleontology and Virtual Paleontology. It disposes of specialized labs of preparation and 3D imaging, including industrial computed tomography and laser scanning equipments. Recent projects include the analysis of dinosaur metabolism, locomotion and reproductive habits, the origin of the great apes and human clade, insular evolution under an evolutionary paleoecology perspective, life-history inference in past organisms and the study of the dynamics of faunal evolution related with climatic change, within others.	

09:55-10:15	**From invertebrates to vertebrates: an overview on research in the Zoology Unit** Dra Anna Morton. *Unitat de Zoologia. Facultat de Biociències.* The Zoology Unit covers a wide range of research areas encompassing the broad goal of understanding the diversity and behaviour of animal life. The staff members are involved in various areas of research: • Biological control with entomopathogenic nematodes: research interest is focused on ecology, distribution and diversity of entomopathogenic nematodes and their use to control agriculture and urban pests. The investigations include taxonomic and morphometric studies, the ecological characterisation and behaviour of these nematodes, genetic improvement, the compatibility with other biocontrol agents and chemical pesticides, and the study of appropriate techniques for the application of nematodes. • Biology of Pycnogonids (sea spiders): the research is focused on studying ecological and taxonomical aspects of pycnogonids. Morphology and molecular data is used to infer phylogenetic and biogeographical issues in a worldwide frame. • Biology of spiders: the research includes different aspects of the biology of order Aranea, across the wide taxonomic range of these spiders. Research concerns the ecology, ethology and faunistic studies of Aranea related to Iberian. • Benthic epifauna of beaches: the research focuses on taxonomy and ecology of benthic communities of beaches, with special interest in the Crustacean Peracarida group. The research includes the study of beaches water quality based on the benthic epifauna diversity. • Taxonomy of Zoarcidae (Teleostei: Perciformes) from the Antarctic and subantarctic regions. • Marine biology and aquaculture: this research line includes the study fish diseases and parasites from their natural environment (including threatened species) and farmed (including new species) by using a multianalysis approach (macroscopic, microscopic, ultrastructure, molecular and epidemiological) in order to infer into the managing the health and welfare of the fish, which has an application as biomarkers of environmental quality. This research line includes also the study of marine ecosystems and the anthropogenic impact assessment; for that, studies focused on trophic ecology and reproductive biology of fish, parasitic communities and diversity and structure of benthic and demersal communities are of interest for their application as biomarkers of environmental quality. • Biology of mammals: the research of this line focuses on the systematics, biogeography, reproduction, ecology and evolution of marsupials, rodents and insectivores. Regarding evolutionary research, this line is centred on studying chromosomal speciation in Robertsonian systems of the house mouse, Mus musculus domesticus, and the evolution of morphological complex structures, with special attention to its variation, integration, modularity and developmental stability.
10:15-11:00	**Primera sessió de pòsters. Descans i cafè.**
11:00-12:00	**Segona sessió d'exposicions orals** — Moderador: Dr. Miquel Ninyerola
11:00-11:20	**Plant Physiology Unit (Research Group 2014 SGR 31)** Dra Charlotte Poschenrieder. *Unitat de Fisiologia Vegetal. Facultat de Biociències.* Our research focuses Plant Stress Physiology, especially addressing toxicity and tolerance mechanisms in plants exposed to excess ions; salinity and metal ions are main targets. Moreover, interactions between abiotic and biotic factors are considered in the view of both

	antagonism/synergism between metal ions and pathogenic fungi or herbivores (metal defense hypothesis) and plant growth promoting rhizosphere and endophytic bacteria. The experimental approaches designed consider from the genetic molecular level to the whole plant and its interaction with the environment. This integrative view helps to get an overall interpretation of the adaptive responses of plants to stress conditions, thus allowing improving the sustainable production of crop plants and healthy food under stress conditions. Field research for the characterization of mechanisms arising from natural adaptation to stressful environments is combined with laboratory studies under controlled conditions. Current methods include GIS- assisted field sampling, phenotyping, mineral analysis, water relations, electrophysiology, plant signaling, microscopy, phytochemical analysis of chelating substances and secondary metabolism providing organic defenses to the plants and active principles for the pharma and cosmetic industry, proteomics and gene expression analysis. Examples of recent and/or current research projects are: *Maize for sustainable cropping systems on tropical acid soil – From molecular biology to field cultivation* (EU, ICA4-CT-2000-30017); *Mechanisms of defense with and against metals in model plants* (MICINN, BFU2010-14873/subprograma BFI); *Silicon rich plant extracts for the control of fungal diseases in vineyards* (GeneralitatCatalunyaAGEC 2012 ML084602); *The Genetic basis of natural ionomic variation* (NIH/NIGMS, USA 2R01GM78536-4A1); *Ion homeostasis in model plants and interactions with microorganisms, keys to the adaptation of plants to problem soils* (MICINN, BFU2013-42839-R) and collaboration in the project Geopark (EU,H2020-MSCA-RISE-2014).
11:20-11:40	**The Center for Research in Agricultural Genomics: basic and applied plant and farm animal science** Dr José Luís Riechmann*. Centre de Recerca en Agrigenòmica (CRAG).* The Center for Research in Agricultural Genomics (CRAG), a CERCA center, is a Consortium that includes CSIC, IRTA, UAB and UB. CRAG is devoted to leading-edge research in the study of molecular and genetic characters of interest in plants and farm animals and in the application of molecular approaches for breeding of species important for agriculture and food production. Research at CRAG spans from research of excellence in basic science to applied studies in collaboration with industry. Research activities at CRAG are organized into four Scientific Programs: • PLANT DEVELOPMENT AND SIGNAL TRANSDUCTION. Research is focused on the genetic and molecular determinants underlying plant development and the signaling pathways and mechanisms connecting the plant life cycle with the changing environment. In the long-term, fundamental knowledge of plant biology is essential for crop improvement and agricultural sustainability. • PLANT RESPONSES TO BIOTIC AND ABIOTIC STRESS. Research is focused on the mechanisms involved in plant signaling and responses to biotic and abiotic stresses. The Program also aims to develop practical applications to boost plant resistance or adaptation to changing and challenging environments. • PLANT METABOLISM AND METABOLIC ENGINEERING. The Program aims to understand how plants control their primary and secondary metabolism to respond to environmental cues and eventually improve the quality of plant products. • PLANT AND ANIMAL GENOMICS. The Program focuses on understanding the genome organization, variability and evolution of different crops and domestic animals and to elucidate the genetic basis of important traits in species of agricultural interest. Recent results that illustrate both the scope of the research activities at CRAG (see: biannualreport2012-2013.cragenomica.es/) span from the sequencing of the genome of melon to the genome-wide characterization of the regulatory networks that control important biological processes in plants, such as floral initiation or the circadian clock.

11:40-12:00	**Research lines at CREAF-Ecology Unit** Dr Joan Pino. *Centre de Recerca Ecològica i Aplicacions Forestals (CREAF) i Unitat d'Ecologia. Facultat de Biociències.* The CREAF is a public research centre devoted to terrestrial ecology, territorial analysis and global change, pursuing excellence in the generation and transfer of knowledge, management tools and methodologies. As acknowledged in the Centre's Mission and Vision, the Centre is aims to achieve excellence in research, develop new methodologies, be innovative, promote transference, train and disseminate on topics related to terrestrial ecology and environmental management, and help society adapt to the effects of global change while improving communication between researchers, managers and civil society. Through excellence in research and development, CREAF strives to become a reference research institution in the Mediterranean and world-wide, pushing the frontiers of knowledge while addressing some of the largest and most complex environmental challenges faced by society this century. Located at the campus of the Universitat Autònoma de Barcelona, the center was founded in 1987 as a consortium between various public administrations, research entities, and academic training entities. Research carried out by the center can be divided into four general areas: Biodiversity, Functional ecology and global change, Forest ecology and wildfire, Environmental analysis and GIS.
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12:30-14:00	Conferència de l'acte de cloenda de les Jornades de BioRecerca UABio 2015 **Biomedical applications of induced reprogramming** Dr. Ángel Raya. *Centre Medicina Regenerativa (CMRB)* Sala d'Actes de la Facultat de Biociències. Comptarà amb la presència de les autoritats acadèmiques de la UAB (Vicerectors de Recerca i de Projectes Estratègics i Degà de la Facultat de Biociències)
Dinar	
15:00-15:40	**Tercera sessió d'exposicions orals** — Moderadora: Dra. Cristina Santos
15:00-15:20	**The research at Botany Unit: from genes and organisms to landscape** Dr Miquel Ninyerola. *Unitat de Botànica. Facultat de Biociències.* The Unit of Botany's (BABVE) mission of education, research and service is conducted through the study of land plants and fungi integrating multiple disciplines –anatomy, function, genetics, development, evolution, systematics, and ecology–, ranging in scale from the molecular to the organismic, the ecosystem and the landscape. Its faculty conduct research in sevral fields (1) The **Systematics, Evolution and Conservation of Vascular Plants** group seeks new insights into the relationships of various plant clades through molecular, morphological, cytogenetic and ultrastructure techniques. It carries out demographic and genetic studies aimed primarily at plant conservation. (2) **Diversity and Floristics of Iberian Riparian Forests** and (3) **Plant-Animal Interactions**: pollination and seed dispersal. (4) The **Bryology Laboratory** houses one of the major collections of Iberian bryophytes and is a hub for the Bryophyte Flora of the Iberian Peninsula project. It also studies the effect of fragmentation and climate change on phylogenetic and functional diversity of bryophyte communities. (5) **Tropical Forest Dynamics**: investigates functional and phylogenetic diversity drivers for tree species distribution and community composition. (6) **Geospatial Sciences applied to Bioclimatology and Landscape Analysis:** develops methods and models to discern spatial-temporal patterns of interactions between climate and vegetation. It also develops and maintains cartographic

	databases –from sensors to public dissemination– and statistical models for spatial analyses, and evaluates metadata quality. (7) **Paleopalinology**: paleoenvironment research through an integrated study of fire (sedimentary charcoals), contamination (heavy metals, Pb isotopic signatures) and vegetation dynamics (pollen analysis) to evaluate human and climate impact on landscapes. (8) **Aerobiology**: studies spore and pollen content and their allergens in the air by modeling long-range atmospheric transport to forecast biological their airborne concentrations. (9) **Mycology**: focuses on the study of arthropod-associated-fungi in the Order Laboulbeniales (Ascomycota) and the ecological group trichomycetes (Mesomycetozoea and Kickxellomycotina fungi), including their systematics, ecology and biogeography worldwide.
15:20-15:40	**Research lines in the Institute of Environmental Science and Technology** Dra Jordina Belmonte. *Institut de Ciència i Tecnologia Ambientals (ICTA).* The **Institute of Environmental Science and Technology** (ICTA) is a multidisciplinary centre that promotes academic research and postgraduate education in the environmental sciences. It aims to improve our understanding of global environmental change, and the nature and causes of environmental problems. In addition, it studies policies, strategies and technologies to foster a transition to a sustainable economy. ICTA offers two masters and one doctoral (PhD) programme within the postgraduate education system of the UAB (http://www.uab.es/postgraduate). They reflect an interdisciplinary approach, within which students can chose the learning trajectory that best fits their interests and capabilities. The PhD programme has been awarded the official quality label of the Spanish government. ICTA undertakes advanced research in 21 specific areas of environmental sciences, covering natural, social and engineering aspects. Our aim is to promote a better understanding of environmental dynamics, problems and their causes, as well as of policies and strategies to stimulate a socio-technical transition to a sustainable economy. The research lines are grouped into three main areas: **Earth and life sciences:** • Aerobiology, atmospheric transport and health • Climate and environmental biogeochemistry • Environmental radioactivity • Marine ecology and management • Ocean acidification • Terrestrial ecology and biodiversity • Palaeo-climate and ocean dynamics **Social environmental sciences:** • Business environmental management & CSR • Cities and environmental justice • Ecological economics and political ecology • Ecosystem services, well-being and development • Environmental and climate economics • Environmental geography and water governance • Ethnoecology and biocultural diversity • Public understanding of science and environmental education • Transport, mobility and the environment **Technology, environment and society:** • Agricultural sustainability and waste management • Energy and integrated environmental assessment • Industrial ecology • Life-cycle analysis and eco-innovation • Science and technology studies

15:45-16:30	**Segona sessió de pòster. Descans i cafè.**
16:30-16:45	**Acte de cloenda i lliurament de premis**

Llistat de pòsters participants

1. Afonso C, Mestres I, Duran M, Alesán A, Malgosa A. **Genetic and perinatal burials in last Iberian site of Camp de les Lloses (Tona, Barcelona).** *Unitat d'Antropologia Biològica.*
2. Alcañiz JM, Ubalde JM, Domene X, Carabassa V, Cañizares R, Raya I, Mattana S. **Efectes del Biochar sobre la producció i qualitat del raïm.** *CREAF-Ecologia*.
3. Alumnes Biologia Ambiental. **Relació entre densitat i fecunditat als boscos del Bages**. *CREAF-Ecologia*.
4. Avgan B, Claramunt B. **Behavioral dynamics of caracal and Eurasian lynx in southwestern Turkey**. *CREAF-Ecologia*.
5. Basnou C. **Serveis ecositèmics i infraeestructura verda a la província de Barcelona**. *CREAF-Ecologia*.
6. Bosch J, Domene X. **Ecotoxicologia d'abelles.** *CREAF-Ecologia*.
7. Bosch J, Rodrigo A. **Ecologia de les interaccions planta-polinitzador.** *CREAF-Ecologia*.
8. Busoms S, Huang X, Bomblies K, Poschenrieder C, Salt DE. **Salinity is an agent of divergent selection driving local adaptation of *Arabidopsis thaliana* to coastal habitats.** *Unitat de Fisiologia Vegetal.*
9. Cabezas M, Camós M, Dapena JL, García-Orad A, Caballín MR, Armengol G. **Genetic polymorphisms involved in outcome of childhood acute leukemia after treatment with chemotherapy.** *Unitat d'Antropologia Biològica.*
10. Calleja JA. **Study of diversity and floristic composition of Iberian riparian forests and study of plant002Danimal interactions: polination and seed dispersal**. *Unitat de Botànica.*
11. Carrassón M, Padrós F, Crespo S, Soler-Membrives A, Constenla M, Dallarés S, Pérez-i-García D. **Biologia marina i aqüicultura.** *Unitat de Zoologia.*
12. Chicano M, Alvarez Y, Ortega M, Carrascosa T, Espinet B, Ortuño F, Caballin MR. **Estudio del patrón de metilación de los genes *p16, p15* y *e-cadherina* en una serie de pacientes afectos de mieloma múltiple.** *Unitat d'Antropologia Biològica.*
13. Claramunt B. **Wildlife in the Changing French Pyrenees.** *CREAF-Ecologia*.
14. Corrales I, Casellas MA, Poschenrieder C. **Possible adverse effects of ZnO nanoparticles on *Thlaspi caerulescens* plants.** *Unitat de Fisiologia Vegetal.*
15. Dallarés S, Constenla M, Padrós F, Cartes JE, Solé M, Pérez-i-García D, Carrassón M. **Parasite infections of the deep-sea fish *Mora moro* related to feeding ecology and health condition of the host.** *Unitat de Zoologia.*
16. Domene X, Cañizares R, Carabassa V, Raya I, Mattana S, Alcañiz JM. **Grup de Recerca Consolidat en Protecció de Sòls.** *CREAF-Ecologia.*
17. Domingo C, Ninyerola M, Pons X, Cristóbal J. **A love story about forest drought detection: the relationship between MODIS data and Climate time series.** *Unitat de Botànica.*
18. Femenias-Gual J, Marigó J, Minwer-Barakat R, Moyà-Solà S. **First postcranial material assigned to Agerinia rosselli (Primates, adapiformes) from les Saleres (Early, Eocene, Catalonia, Spain).** *Institut Català de Paleontologia M Crusafont.*

19. Fortuny J, Marcé-Nogué J. **Modelling stress in the skull of salamanders (Amphibia:Caudata).** *Institut Català de Paleontologia M Crusafont.*
20. Galbany M, Carnicero P, López-Albarado J, Sáez LL. **Systematics, Evolution and Conservation of Vascular Plants**. *Unitat de Botànica.*
21. Gallego B, Cabot C, Martos S, Barceló J, Poschenrieder C. **The activation of the jasmonic signaling pathway by Cd in *Arabidopsis thaliana* influences the plant's response to *Botrytis cinerea*.** *Unitat de Fisiologia Vegetal.*
22. García del Pino F, Morton A, Palomo A, García López D, Martínez M. **Control biològic de plagues amb nematodes entomopatògens.** *Unitat de Zoologia.*
23. García López D, Martínez M, Morton A, García del Pino F. **Presencia natural de nematodos entomopatógenos en avellanares y castañares de Asturias y Cataluña.** *Unitat de Zoologia.*
24. Gargallo-Garriga A, Sardans J, Pérez-Trujillo M, Parella T, Peñuelas J. **Ecometabolomic study of plant shoots/roots responses to drought**. *CREAF-Ecologia*.
25. González MM, Ramos A, Mateiu L, Guardiola M, Goios A, Aluja MP, Santos C. **Classification of nuclear insertions of mitochondrial origin: candidates to the study of human variability.** *Unitat d'Antropologia Biològica.*
26. Grelaud M, Ziveri P. ***Emiliania huxleyi* calcite mass variability during periods of atmospheric CO2 rise in the Mediterranean Sea**. *Institut de Ciència i Tecnologia Ambientals.*
27. Hernández-Castellano C, Piñol J, Espadaler X. **Uselesness and limitations of stable isotopes of C & N to study food webs. An example of an ant community from a citrus grove**. *CREAF-Ecologia*.
28. Hirhish U, De Linares C, Belmonte J. ***Bet v 1 concentrations in the atmosphere of the Barcelona area, year 2014, and its relation with Birch and other crossreactive pollens**. Unitat de Botànica.*
29. Izquierdo R, Aguillaume L, Alarcón M, Avila A. **Trends and patterns of N wet deposition in NE Spain for the last 3 decades**. *CREAF-Ecologia*.
30. Julià N, Ninyerola M. **An interoperable standard system for the automatic generation and publication of the fire risk maps based on Fire Weather Index (FWI).** *Unitat de Botànica.*
31. Llimós M, Cianfanelli C, Martos S, Poschenrieder C. **Characterization of rhizobacteria and endophytic bacteria in natural populations of *Arabidopsis thaliana* to improve the conditions of plant growth.** *Unitat de Fisiologia Vegetal.*
32. Marin-Moratalla N, Cubo J, Jordana X, Moncunill-Sole B, Köhler M. **Correlates of bone histology quantitative data with life history traits and ecological parameters in bovids.** *Institut Català de Paleontologia M Crusafont.*
33. Martos S, Gallego B, Sáez L, López-Alvarado J, Cabot C, Poschenrieder C. **Pyrenean populations of *Noccaea brachypetala* as natural bioaccumulators of Cd and Zn.** *Unitat de Fisiologia Vegetal.*
34. Mobargha M, Claramunt B. **Changing behavioral patterns in two co-existing carnivores: the persian leopard and the cheetah**. *CREAF-Ecologia*.
35. Moncunill-Solé B, Marín-Moratalla N, Jordana X, Casanovas-Vilar I, Rook L, Köhler M. **Preliminary results on life history traits of the insular fossil rodent Mikrotia (Muridae, Rodentia) from Gargano archipelago (Apulia, Italy).** *Institut Català de Paleontologia M Crusafont.*
36. Montes N, Subirà ME. **Artrosis y cambios en las entesis como marcadores de ocupación. Reconstrucción de la actividad de una actividad de una comunidad cisterciense.** *Unitat d'Antropologia Biològica.*
37. Morton A. **Dels invertebrats als vertebrats: la recerca a la Unitat de Zoologia**. *Unitat de Zoologia.*
38. Muñoz F, Martínez J, Medarde N, Sans MA, López MJ, Ventura J. **Effect of Robertsonian fusions on the skull form variation in the house mouse.** *Unitat de Zoologia.*
39. Pascual D, Pla E, Borràs G, Savé R. **Projecte MEDACC: Adaptant la Mediterrània al canvi climàtic.** *CREAF-Ecologia*.
40. Pérez-i-García D, Constenla M, Carrassón M. **Preliminary data on the parasitic fauna of *Alepocephalus rostratus* Risso, 1820 in the Catalan Sea.** *Unitat de Zoologia.*
41. Pérez-Obiol R, Joan Manuel Soriano, Albert Pèlachs, Juan Carlos García-Codron. **Vegetation dynamics, environmental contamination and fires during the holocene, a comparison between two regions: Cantabria and Catalan Pyrenees.** *Unitat de Botànica.*
42. Pina M, Almécija S, Ruff CB, Alba D, Moyà-Solà S. **The plesiomorphic condition of the great ape femur: biomechanical evidence from the IPS41724 femur (middle Miocene, NE Iberian Peninsula).** *Institut Català de Paleontologia M Crusafont.*
43. Pino J. **Presentació projecte NOVFORESTS**. *CREAF-Ecologia*.

44. Pino J, Gamboa N. **Història d'usos i composició específica en matollars**. *CREAF-Ecologia*.
45. Polania J, Poschenrieder C, Rao I, Beebe S. **Physiological basis of improved adaptation to drought in common bean.** *Unitat de Fisiologia Vegetal.*
46. Pons X, Ninyerola M, Cea C, González-Guerrero O, Serra P, Zabala A, Pesquer L, Serral I, Masó J, Domingo C, Serra JM, Cristóbal J, Hain CR, Anderson MC. **Preparing for global land cover & climate change mapping at detailed resolution. The design of a massive database from long time series of landsat land cover products and in situ climate data.** *CREAF-Ecologia.*
47. Pujol M, Barquinero JF, Puig P, Puig R, Caballín MR, Barrios LL. **Nuevo modelo de dosimetría biológica para integrar bajas y altas dosis.** *Unitat d'Antropologia Biològica.*
48. Robles JM, Madurell-Malapeira J, Casanovas-Vilar I, Abella J, Alba DM. **The scimitar-toothed cat Machairodus aphanistus (Carnivora, Felidae) in the Vallès-Penedès Basin (NE Iberian Peninsula): new remains and taxonomic revision.** *Institut Català de Paleontologia M Crusafont.*
49. Roselló MT, Llugany M, Poschenrieder C. **Signalling aluminium responses in two contrasting rice cultivars**. *Unitat de Fisiologia Vegetal.*
50. Sánchez A, Broekman A. **BeWater project: Science and Society co-creating 4 Mediterranean River Basin Adaptation Plans to face water scarcity.** *CREAF-Ecologia*.
51. Santamaria S, Guàrdia L. **Fongs simbionts d'artròpodes: Laboulbeniales (Ascomicots) i tricomicets (Kicxellomycotina + Mesomycetozoea**). *Unitat de Botànica.*
52. Sarto V, Mullens BA. **A new European nematode parasite of *Culicoides* (Diptera, Ceratopogonidae): its biology and potential for biological control**. *Institut de Ciència i Tecnologia Ambientals.*
53. Sauvêtre A, Schröder P, Poschenrieder C. **Removal of carbamazepine by *Phragmites australis* and its endopytic bacteria**. *Unitat de Fisiologia Vegetal.*
54. Vélez-Pereira AM, De Linares C, Canela M, Belmonte J. ***Predicción de los niveles diarios de esporas de Cladosporium en el aire aplicando modelos de regresión logística.*** *Unitat de Botànica.*
55. Ventura J, Muñoz F, Martínez J. **Biologia de mamífers.** *Unitat de Zoologia.*
56. Vera D, Llugany M, Poschenrieder C, Flowers RW, Suárez-Capello C. **Diversidad de artrópodos en el suelo de dos ecosistemas de producción de musáceas en Ecuador**. *Unitat de Fisiologia Vegetal.*
57. Vinuesa V, Madurell-Malapeira J, Fortuny J, Alba DM. **The internal cranial morphology of the extinct bone-cracking hyena Pliocrocuta perrieri (Carnivora, Hyaenidae).** *Institut Català de Paleontologia M Crusafont.*
58. Umbria M, Caner J, Ramos A, Vega T, Lozano JE, Santos C, Aluja MP. **Involvement of mitochondrial haplogroups in myocardial infarction and stroke: A case-control study in Castile and Leon (Spain) population.** *Unitat d'Antropologia Biològica.*