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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique N°62

Colette Bertrand, Christian Mougin, Annette Bérard, Sonia Grimbuhler,
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Bulletin de veille du réseau d'écotoxicologie terrestre et aquatique



N° 62 Avril 2023

Réalisé par l'équipe de veille sur la période du 1er Mars au 30 Avril 2023.

Colette Bertrand, Christian Mouglin (UMR 1402 EcoSys), Annette Berard, Sonia Grimbuhler (UMR 1463 ITAP),
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Edito

Voici notre 62ème bulletin de veille, qui nous espérons toujours informatif !

Nous nous rappelons que les fiches thématiques sont désormais directement consultables et téléchargeables sur le site ECOTOX : <https://www6.inrae.fr/ecotox/Productions/Fiches-thematiques>.

Nous vous rappelons notre PCI pour la soumission de vos preprints : <https://ecotoxenvchem.peercommunityin.org/> Notre PCI monte en puissance.

N'oubliez pas de nous transmettre les informations que vous souhaitez diffuser, notamment vos publications que nous pourrions avoir oubliées. Nous rencontrons actuellement des soucis d'alertes WoS, il se peut que la liste des productions du réseau soit donc incomplète.

L'équipe vous souhaite une bonne lecture de ce bulletin !

Contact : veille-ecotox@inrae.fr

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- Adaptive plastic responses to metal contamination in a multistress context: a field experiment in fish | SpringerLink
- An indicator to assess risks on water and air of pesticide spraying in crop fields
- Advancing exposure assessment approaches to improve wildlife risk assessment
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- Effects of 17 α -ethinylestradiol on the neuroendocrine gonadotropic system and behavior of European sea bass larvae (*Dicentrarchus labrax*): Journal of Toxicology and Environmental Health, Part A: Vol 86, No 6
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- Effects of Chemical Compounds on the Activity of the N-acetyl- β -D-Glucosaminidase of the Marine Prawn, *Palaemon serratus*: Screening In Vitro - Rollin - 2023 - Environmental Toxicology and Chemistry - Wiley Online Library
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- Continuum from microplastics to nanoplastics: effects of size and source on the estuarine bivalve *Scrobicularia plana*
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- [tel-04085829] Développement d'un procédé électrochimique et de capteurs associés pour le traitement de perturbateurs endocriniens phénoliques dans les eaux
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- Parution" Index acta biocontrôle 2023", 7e édition
- NRDC Analysis: Peer-Reviewed Study Finds EPA Misses PFAS Chemicals Already Present in Drinking Water
- New report shows that alternatives to glyphosate do exist

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- Non-renouvellement de l'approbation de la substance active «oxamyl»
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- Pesticides : les dérives sociologiques de l'institut agricole Inrae
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- Le repli des phytos 'n'est pas terminé et le risque est qu'il s'accélère encore'
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- [Étude prospective] « Une agriculture européenne possible sans pesticides chimiques en 2050 »
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- François Dedieu, sociologue : « La toxicologie réglementaire reste aveugle à une diversité d'effets possibles des pesticides »
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- Biopesticides should be preferred over chemical pesticides for fall armyworm control, study suggests
- Pesticide Exposure and the Link to Irritable Bowel Syndrome (IBS)

28/04/2023

Occurrence and potential harms of organochlorine pesticides (OCPs) in environment and their removal by periphyton

Authors: Tang CL, Chen ZH, Huang YP et al.

Source: CRITICAL REVIEWS IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY Early Access, DOI 10.1080/10643389.2023.2196226

Abstract: Organochlorine pesticides (OCPs) have been widely used around the world due to their high-efficiency and broad-spectrum insecticidal effects. However, they pose a severe threat to ecosystems and human health due to their easy bioaccumulation and high toxicity. Periphyt...



28/04/2023

Microbiome rescue: directing resilience of environmental microbial communities

Author: Shade A

Source: CURRENT OPINION IN MICROBIOLOGY 72:102263, 2023, DOI 10.1016/j.mib.2022.102263

Abstract: Earth's climate crisis threatens to disrupt ecosystem services and destabilize food security. Microbiome management will be a crucial component of a comprehensive strategy to maintain stable microbial functions for ecosystems and plants in the face of climate change. Microbiome rescue is the directed, community-level re...

28/04/2023

Emerging challenges of the impacts of pharmaceuticals on aquatic ecosystems: A diatom perspective

Authors: Kock A, Glanville HC, Law AC et al.

Source: SCIENCE OF THE TOTAL ENVIRONMENT 878:162939, 2023, DOI 10.1016/j.scitotenv.2023.162939

Abstract: Pharmaceuticals are a ubiquitous group of emerging pollutants of considerable importance due to their biological potency and potential to elicit effects in wildlife and humans. [...] However, there is a paucity of available information regarding the effects of pharmaceuticals on species...

24/04/2023

How do metals interact with periphytic biofilms?

Authors: Leclerc M, Wauthy M, Planas D, Amyot M

Source: SCIENCE OF THE TOTAL ENVIRONMENT 876:162838, 2023, DOI 10.1016/j.scitotenv.2023.162838

Abstract: Extracellular matrix of periphyton has complex structural and chemical composition regulating metal transfer within biofilms with consequences for metal transfer to aquatic food webs. We investigated which metal species were retained in the loosely and the tightly bound fractions o...

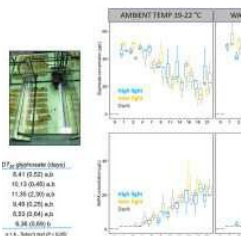
24/04/2023

Effects of combining flow intermittency and exposure to emerging contaminants on the composition and metabolic response of streambed biofilm bacterial communities

Authors: Rozman M, Lekunberri I, Grgic I et al.

Source: SCIENCE OF THE TOTAL ENVIRONMENT 877:162818, 2023, DOI:10.1016/j.scitotenv.2023.162818

Abstract: Freshwater ecosystems are characterised by the co-occurrence of stressors that simultaneously affect the biota. Among these, flow intermittency and chemical pollution severely impair the diversity and functioning of streambed bacterial communities. Using an artificial streams mesoc...



06/04/2023

Effects of global change on the ability of stream biofilm to dissipate the herbicide glyphosate

Authors: Abdelhak S, Menard Y, Artigas J

Source: ENVIRONMENTAL POLLUTION 324:121406, 2023, DOI 10.1016/j.envpol.2023.121406

Abstract: The herbicide glyphosate is contaminating a large number of freshwater ecosystems worldwide and its fate and effects remains uncertain in light of the effects of global change. The present study examines how variations in water temperature and light availability relative to global change affect the a...



06/04/2023

Clogging modulates the copper effects on microbial communities of streambed sediments

Authors: Kergoat L, Dabrin A, Masson M et al.

Source: ECOTOXICOLOGY Early Access, DOI 10.1007/s10646-023-02641-y

Abstract: The hyporheic zone, i.e. the water-saturated sediment beneath and alongside the riverbed, is exposed to multiple stressors. Agricultural-watershed rivers are frequently exposed to two concomitant stressors: clogging and copper contamination. However, one stressor exposure can increase sensitivity to a second st...

22/03/2023

The Acute Impact of Arsenic As(III) on the Prokaryotic Community Composition and Selected Bacterial Strains Based on Microcosm Experiments

Authors: Farkas R, Toumi M, Abbaszade G et al.

Source: GEOMICROBIOLOGY JOURNAL, Early Access, DOI 10.1080/01490451.2023.2181469

Abstract: In the present study, a 3-week microcosm experiment was conducted to assess the acute effect of arsenic trioxide [As(III)] at various concentrations on the bacterial communities. Water from a drinking water system (DWS) containing 6 µg/L of arsenic was used as a basis for microcosm experiments. To...

08/03/2023

Pesticide responses of Arctic and temperate microalgae differ in relation to ecophysiological characteristics

Authors: Du J, Izquierdo D, Naoum J et al.

Source: AQUATIC TOXICOLOGY 254:106323, 2023, DOI 10.1016/j.aquatox.2022.106323

Abstract: Polar ecosystems play an important role in global primary production. Microalgae have adaptations that enable them to live under low temperature environments where irradiance and day length change drastically. Their adaptations, leading to different ecophysiological characteristics relative to temperat...

08/03/2023

Response and recovery mechanisms of river microorganisms to gradient concentrations of estrogen

Authors: Qin D, Li Y, Chen NW et al.

Source: FRONTIERS IN MICROBIOLOGY 14:1109311, 2023, DOI 10.3389/fmicb.2023.1109311

Abstract: As an important ecological system on the earth, rivers have been influenced by the rapid development of urbanization, industrialization, and anthropogenic activities. Increasingly more emerging contaminants, such as estrogens, are discharged into the river environment. In this study, we conducted river w...

03/03/2023

Emerging contaminants in the aquatic environment: phytoplankton structure in the presence of sulfamethoxazole and diclofenac

Authors: Duarte JAP, Ribeiro AKN, de Carvalho P et al.

Source: ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Early Access, DOI 10.1007/s11356-023-25589-2

Abstract: Chemicals from anthropogenic activities such as domestic sewage, pesticide leaching, and improper chemical disposal have caused groundwater contamination. The presence of these emerging contaminants in the aquatic environment can change water quality and biota composition...

ERA / PUBLICATIONS SCIENTIFIQUES / ECOTOX SPATIALE/ECOTOX DU PAYSAGE

27/03/2023

The distribution and human health risk assessment of eight neonicotinoid residues in agricultural soils from four provinces, south China

Source: Chemosphere, Volume 322, 138143

DOI: 10.1016/j.chemosphere.2023.138143

Abstract: The widespread use of neonicotinoid insecticides in China's agricultural sector has led to high residual concentrations in the agroecosystem. Since soil is the primary source of direct pesticide exposure, soil contamination is a significant concern, particularly in regions with extensive agricultural production. This study aims to determine the s...

09/03/2023

Challenges of spatially extrapolating aquatic pesticide pollution for policy evaluation

Source: Science of The Total Environment, Volume 875, 162639

DOI: 10.1016/j.scitotenv.2023.162639

Abstract: Aquatic pesticide pollution is an important issue worldwide. Countries rely on monitoring programs to observe water bodies quality and on models to evaluate pesticide risks for entire stream networks. Measurements are typically sparse and discontinuous which lead to issues in quantifying pesticide transport at the catchment sca...

30/03/2023

Biofilm-Colonized versus Virgin Black Microplastics to Accelerate the Photodegradation of Tetracycline in Aquatic Environments: Analysis of Underneath Mechanisms

Authors: Ding R, Ouyang ZZ, Zhang X et al.

Source: ENVIRONMENTAL SCIENCE & TECHNOLOGY 57:5714–5725, 2023, DOI 10.1021/acs.est.3c00019

Abstract: Tire wear particles (TWPs) exposed to the aquatic environment are rapidly colonized by microorganisms and provide unique substrates for biofilm formation, which potentially serve as vectors for tetracycline (TC) to influence their behaviors and potential risks. To date, the photo degradation capacity of TWPs on contaminants due ...

25/03/2023

Impact of aged and virgin microplastics on sedimentary nitrogen cycling and microbial ecosystems in estuaries

Authors: Wang XD, Zhang XL, Yao C et al.

Source: SCIENCE OF THE TOTAL ENVIRONMENT 878:162977, 2023, DOI 10.1016/j.scitotenv.2023.162977

Abstract: Microplastics (MPs) entering the environment undergo complex weathering (aging) processes, however, the impacts of aged MPs on estuarine nitrogen cycling and microbial ecosystems remain largely unknown. In this study, a 50 days microcosm experiment was conducted to investigate the response of sedimentary nitrogen transformation ...

PESTICIDES ET SANTE DES AGRICULTEURS

30/04/2023

Childhood exposures to environmental chemicals and neurodevelopmental outcomes in congenital heart disease

Authors: Gaynor JW, Burnham NB, Ittenbach RF, Gerdes M et al.

Source: PLOS ONE 17(11):e0277611, 2023, DOI 10.1371/journal.pone.0277611

Abstract: Children with congenital heart defects have an increased risk of neurodevelopmental disability. The impact of environmental chemical exposures during daily life on neurodevelopmental outcomes in toddlers with congenital heart defects is unknown. This prospective study investigated the impacts of early childhood exposure to mixtures ...

29/04/2023

Characterizing the adult exposome in men and women from the general population: Results from the EHES-LUX study

Authors: Ruiz-Castell M, Le Coroller G, Pexaras A, Ciprian GM et al.

Source: ENVIRONMENT INTERNATIONAL 173:107780, 2023, DOI 10.1016/j.envint.2023.107780

Abstract: Throughout life individuals are exposed to a large array of diverse environmental exposures (exposome). Hair analyses can assess chronic exposure to a large number of chemicals with less intra-variability than urine and blood. This is essential for studies that aim to achieve a global vision of the exposome. We ...

29/04/2023

Assessment of fine droplets (<10 μ m) in primary airborne spray drift: A new methodological approach

Authors: Grella M, Maffia J, Dinuccio E, Balsari P et al.

Source: JOURNAL OF AEROSOL SCIENCE 169:106138, 2023, DOI 10.1016/j.jaerosci.2023.106138

Abstract: Passive samplers are especially inefficient when collecting and measuring the finest particles in primary airborne spray drift far from the spray source. We describe a method to improve the measurement of <10 μ m-sized droplets that become airborne during crop spray applications. An airblast sprayer was combined with ...

28/04/2023

Glyphosate in house dust and risk of childhood acute lymphoblastic leukemia in California

Authors: Ward MH, Madrigal JM, Jones RR, Friesen MC et al.

Source: ENVIRONMENT INTERNATIONAL 172:107777, 2023, DOI 10.1016/j.envint.2023.107777

Abstract: Background: Residential use of pesticides has been associated with increased risk of childhood acute lymphoblastic leukemia (ALL). We evaluated determinants of glyphosate concentrations in house dust and estimated ALL risk in the California Childhood Leukemia Study (CCLS). Methods: The CCLS is a population-based case-control ...

24/04/2023

Development of an automated mobile robotic sprayer to prevent workers' exposure of agro-chemicals inside polyhouse

Authors: Jat D, Dubey K, Potdar RR, Chakraborty SK et al.

Source: JOURNAL OF FIELD ROBOTICS , 2023, DOI 10.1002/rob.22181

Abstract: Automated spraying practices are inevitable for modern polyhouse management to attain a broader objective of minimizing human exposure to agrochemicals. In the present study, an automated mobile robotic sprayer (AMRS) was developed to combat the increased human intervention and safeguard agricultural workers from potential health hazards. The ...

24/04/2023

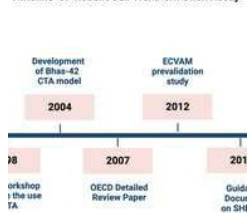
Assessment of exposure to pesticide mixtures in five European countries by a harmonized urinary suspect screening approach

Authors: Ottenbros I, Lebret E, Huber C, Lommen A et al.

Source: INTERNATIONAL JOURNAL OF HYGIENE AND ENVIRONMENTAL HEALTH 248:114105, 2023, DOI 10.1016/j.ijheh.2022.114105

Abstract: Humans are exposed to a mixture of pesticides through diet as well as through the environment. We conducted a suspect-screening based study to describe the probability of (concomitant) exposure to a set of pesticide profiles in five European countries (Latvia, Hungary, Czech Republic, Spain ...

Timeline of Rodent Cell Transformation Assay



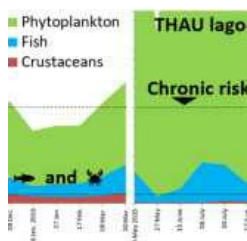
24/04/2023

The Cell Transformation Assay: A Historical Assessment of Current Knowledge of Applications in an Integrated Approach to Testing and Assessment for Non-Genotoxic Carcinogens

Authors: Colacci A, Corvi R, Ohmori K, Paparella M et al.

Source: International Journal of Molecular Sciences 24(6): 5659, 2023, DOI 10.3390/ijms24065659

Abstract: The history of the development of the cell transformation assays (CTAs) is described, providing an overview of in vitro cell transformation from its origin to the new transcriptomic-based CTAs. Application of this knowledge is utilized to address how the different types ...



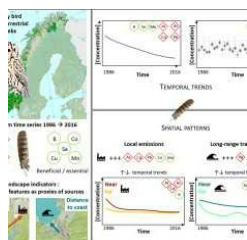
24/04/2023

Evaluating pesticide mixture risks in French Mediterranean coastal lagoons waters - ScienceDirect

Authors: Munaron D, Merigot B, Derolez V, Tapie N et al.

Source: Science of the Total Environment 867: 161303, 2023, DOI 10.1016/j.scitotenv.2022.161303

Abstract: To assess the risk of pesticide mixtures in lagoon waters, this study adopted a multi-step approach using integrative passive samplers (POCIS) and concentration addition (CA) toxicological models. Two French Mediterranean lagoons (Thau and Or) were monitored for a range o...



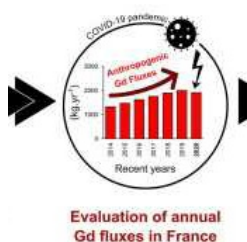
24/04/2023

Long-term monitoring of exposure to toxic and essential metals and metalloids in the tawny owl (Strix aluco): Temporal trends and influence of spatial patterns - ScienceDirect

Authors: Devalloir Q, Fritsch C, Bangjord G, Bardsen BJ et al.

Source: Science of the Total Environment 876: 162710, 2023, DOI 10.1016/j.scitotenv.2023.162710

Abstract: As a result of regulatory decisions, atmospheric deposition of most toxic metals and metalloids (MEs) has decreased in Europe over the past few decades. However, little is known about how this reduction translates into exposure at higher trophic levels in the terre...



24/04/2023

European fluxes of medical gadolinium to the ocean: A model based on healthcare databases - ScienceDirect

Authors: Pereto C, Lerat-Hardy A, Baudrimont M, Coynel A

Source: Environment International 173: 107868, 2023, DOI 10.1016/j.envint.2023.107868

Abstract: Marine ecosystems are exposed to a multitude of stresses, including emerging metals as Rare Earth Elements. The management of these emerging contaminants represents a significant environmental issue. For the past three decades, the increasing medical use of gadolinium-based contras...

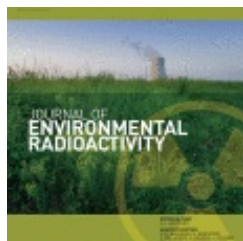
24/04/2023

Operational Method to Easily Determine the Available Fraction of a Contaminant in Soil and the Associated Soil-Solution Distribution Coefficient | ACS Earth and Space Chemistry

Authors: Coppin F, Fevrier L, Martin-Garin A

Source: ACS Earth Space Chem 7(3): 559-570, 2023, DOI 10.1021/acsearthspacechem.2c00324

Abstract: Well understanding the solid/solution partitioning of a contaminant is of first importance to determine its residence time in the environment, environmental availability, or bioavailability. Currently, parameters of contaminant transfer models are derived from two conceptually different app...



24/04/2023

Insights into the modes of action of tritium on the early-life stages of zebrafish, *Danio rerio*, using transcriptomic and proteomic analyses - ScienceDirect

Authors: Arcanjo C, Frelon S, Armant O, Camoin L et al.

Source: Journal of Environmental Radioactivity 261: 107141, 2023, DOI 10.1016/j.jenvrad.2023.107141

Abstract: In the environment, populations are exposed to different kinds of ionizing radiation. Little is known about their modes of action on non-human species, and whether or not they are similar for alpha, beta and gamma radiations, considered as the reference. In this conte...



24/04/2023

Dataset on metabolome dimorphism in different organs of mature *Palaemon serratus* prawn - ScienceDirect

Authors: Marie B, Coulaud R, Boulange-Lecomte C, Foucault P et al.

Source: Data in Brief 48: 109038, 2023, DOI 10.1016/j.dib.2023.109038

Abstract: The prawn *Palaemon serratus* exhibits a large distribution (occurring along the Northeastern Atlantic coast to the Mediterranean), and has thus been found suitable as model organism valuable for various ecotoxicological studies. However, little is still known about the potential input of ...

24/04/2023

Tritiated Thymidine Internalization in Zebrafish Early Life Stages: Joint Use of Experimental Procedures and Microdosimetry

Source: Di Lombo MS, Cavalie I, Camilleri V, Perrot Y et al.

Source: Radiation Research 199(4): 373-384, 2023, DOI 10.1667/RADE-22-00157.1

Abstract: Tritium is found in the environment under three forms: free in the water, gaseous, and bound to organic matter. Once internalized in living organisms, it can be found in two forms: tissue free water tritium (TFWT) and organically bound tritium (OBT). This study aims to better understand...

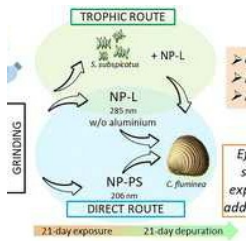
24/04/2023

Comparative immune responses of blue mussel and zebra mussel haemocytes to simultaneous chemical and bacterial exposure - ScienceDirect

Authors: Gendre H, Ben Cheikh Y, Le Foll F, Geffard A et al.

Source: Fish & Shellfish Immunology 135: 108654, 2023, DOI 10.1016/j.fsi.2023.108654

Abstract: Biomonitoring at the scale of the aquatic continuum and based on biomarkers, requires various representative species and a knowledge of their sensitivity to contaminants. Mussel immunomarkers are established tools for evaluating immunotoxic stress, but little is known about ...



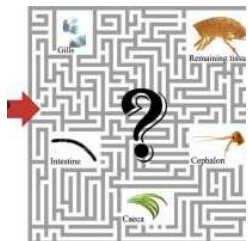
10/04/2023

Origin, exposure routes and xenobiotics impart nanoplastics with toxic effects on freshwater bivalves

Authors: Arini A, Muller S, Coma V, Grau E et al.

Source: Environmental Science: Nano, 2023, DOI 10.1039/d3en00022b

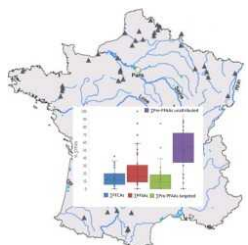
Abstract: Various environmentally aged plastic wastes were collected from the environment and crushed to the submicronic scale to get a mix of nanoplastics (NPs) of different natures – mostly polyolefins (PE, PP), polyesters (PET), polyvinyls (PS and PVC) and undefined shapes (denoted NP-L, mean hydrodynamic diamete...



10/04/2023

Influence of the exposure concentration of dissolved cadmium on its organotropism, toxicokinetic and fate in Gammarus fossarum

biodistribution among organs remained scarce in invertebrates....



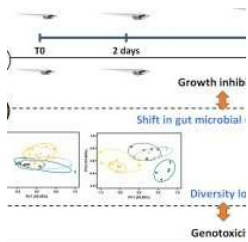
10/04/2023

Per- and polyfluoroalkyl substances (PFAS) in surface sediments: Occurrence, patterns, spatial distribution and contribution of unattributed precursors in French aquatic environments

Authors: Macorps N, Labadie P, Assoumani A, Lestremau F et al.

Source: Science of the Total Environment 874: 162493, 2023, DOI 10.1016/j.scitotenv.2023.162493

Abstract: While perfluoroalkyl sulfonic acids (PFSA) and perfluoroalkyl carboxylic acids (PFCAs) are ubiquitous in aquatic environments, non-targeted methods have recently revealed the presence of numerous unidentified per- and polyfluoroalkyl substances (PFAS). Besides thos...



10/04/2023

Gut microbiota impairment following graphene oxide exposure is associated to physiological alterations in Xenopus laevis tadpoles - ScienceDirect

Authors: Evariste L, Mouchet F, Pinelli E, Flahaut E et al.

Source: Science of the Total Environement 857(2): 159515, 2023, DOI 10.1016/j.scitotenv.2022.159515

Abstract: Graphene-based nanomaterials such as graphene oxide (GO) possess unique properties triggering high expectations for the development of technological applications. Thus, GO is likely to be released in aquatic ecosystems. It is essential to evaluate its ecotoxicologi...



10/04/2023

Inhibition by pesticides of the DJ-1/Park7 protein related to Parkinson disease

Authors: Mathas N, Poncet G, Laurent C, Larigot L et al.

Source: Toxicology Volume 487 : 153467, 2023, DOI 10.1016/j.tox.2023.153467

Abstract: Parkinson's disease is a severe neurodegenerative disease. Several environmental contaminants such as pesticides have been suspected to favor the appearance of this pathology. The protein DJ-1 (or Park7) protects against the development of Parkinson's disease. Thus, the possible inhibitory ...

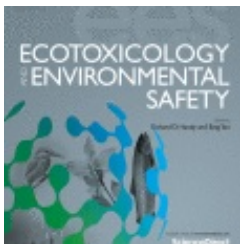
10/04/2023

Water | Free Full-Text | Multi-Annual Dynamics of a Coastal Groundwater System with Soil-Aquifer Treatment and Its Impact on the Fate of Trace Organic Compounds

Authors: Guillemoto Q, Picot-Colbeaux G, Valdes D, Devau N et al.

Source: Water 15(5): 934, 2023, DOI 10.3390/w15050934

Abstract: The combination of managed aquifer recharge (MAR) with soil-aquifer treatment (SAT) has clear advantages for the future sustainable quality and quantity management of groundwater, especially when using treated wastewater. We built a Marthe flow and transport model of an MAR-SAT system located in a near-s...



10/04/2023

The retinoid metabolism of *Gammarus fossarum* is disrupted by exogenous all-trans retinoic acid, citral, and methoprene but not by the technical formulation of glyphosate

Authors: Gauthier M, Daniele G, Giroud B, Lafay F et al.

Source: Ecotoxicology and Environmental Safety 252: 114602, 2023, DOI 10.1016/j.ecoenv.2023.114602

Abstract: Over the last decade, fluctuations of retinoids (RETs), also known as vitamin A and derivatives, have proved to be useful biomarkers to assess the environmental chemical pressure on a wide variety of non-target vertebrates. This use of RET-based biomarkers is of partic...



10/04/2023

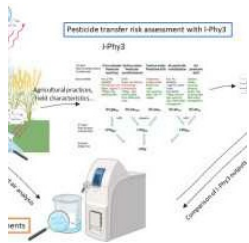
Adaptive plastic responses to metal contamination in a multistress context: a field experiment in fish | SpringerLink

Authors: Petitjean Q, Laffaille P, Perrault A, Cousseau M, Jean S et al.

Source: Environmental Science and Pollution research 2023, DOI 10.1007/s11356-023-26189-w

Abstract: Wild populations often differ in their tolerance to environmental stressors, but intraspecific variability is rarely taken into account in ecotoxicology. In addition, plastic responses to multiple stressors have rarely been investigated in realistic field condit...

10/04/2023



An indicator to assess risks on water and air of pesticide spraying in crop fields

Authors: Pierlot F, Marks-Perreau J, Soule E, Keichinger O et al.

Source: Science of the Total Environment 870: 161000, 2023, DOI 10.1016/j.scitotenv.2022.161000

Abstract: Stakeholders involved in actions to reduce the use and the impacts on the environment or human health of pesticides need operational tools to assess crop protection strategies in regard to these impacts. I-Phy3 brings together all improvements introduced since t...

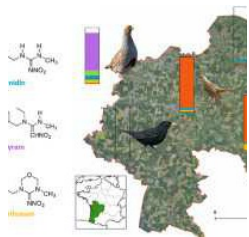
10/04/2023

Advancing exposure assessment approaches to improve wildlife risk assessment

Authors: Morrissey C, Fritsch C, Fremlin K, Adams W et al.

Source: Integrated Environmental Assessment and Management 2023, DOI 10.1002/ieam.4743

Abstract: The exposure assessment component of a Wildlife Ecological Risk Assessment aims to estimate the magnitude, frequency, and duration of exposure to a chemical or environmental contaminant, along with characteristics of the exposed population. This can be challenging in wildlife as...



10/04/2023

Neonicotinoids: Still present in farmland birds despite their ban - ScienceDirect

Authors: Fuentes E, Gaffard A, Rodrigues A, Millet M et al.

Source: Chemosphere 321: 138091, 2023, DOI 10.1016/j.chemosphere.2023.138091

Abstract: Neonicotinoids (neonics) are the most widely used insecticides worldwide and are considered to be of low risk to non-target organisms such as vertebrates. Further, they are reported to be rapidly excreted and metabolized, reducing their potential toxicity. Nevertheless, growing evidence ...

10/04/2023

Multivariate Tiered Approach To Highlight the Link between Large-Scale Integrated Pesticide Concentrations from Polar Organic Chemical Integrative Samplers and Watershed Land Uses | Journal of Agricultural and Food Chemistry

Authors: Bernard M, Boutry S, Guibal R, Morin S t al.

Source: Journal of Agricultural and Food Chemistry 71(7): 3152-3163, 2023, DOI 10.1021/acs.jafc.2c07157

Abstract: This paper presents a multi-step methodology to identify relationships between integrative pesticide quantifications and land uses on a given watershed of the Adour-Garonne Basin (Southwestern France). In fact, a large amount of pesticide concentratio...



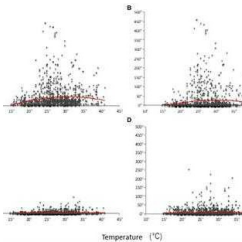
10/04/2023

Effects of 17 α -ethinylestradiol on the neuroendocrine gonadotropic system and behavior of European sea bass larvae (*Dicentrarchus labrax*): Journal of Toxicology and Environmental Health, Part A: Vol 86, No 6

Authors: Soloperto S, Olivier S, Poret A, Minier C et al.

Source: Journal of Toxicology and Environmental Health, Part A 86(6): 198-215, 2023, DOI 10.1080/15287394.2023.2177781

Abstract: The widespread use of 17 α -ethinylestradiol (EE2), and other estrogenic endocrine disruptors, results in a continuous release of estrogenic compounds into aquatic environments. Xenoestrogens may interfere with the neuroendocrine system of aquatic org...



10/04/2023

Decision-making criteria for pesticide spraying considering the bees' presence on crops to reduce their exposure risk

Authors: Decourtye A, Rollin O, Requier F, Allier F et al.

Source: Frontiers in Ecology and Evolution 11: 1062441, 2023, DOI 10.3389/fevo.2023.1062441

Abstract: The risk of poisoning bees by sprayed pesticides depends on the attractiveness of plants and environmental and climatic factors. Thus, to protect bees from pesticide intoxication, an usual exemption to pesticide regulations allows for spraying on blooming flowers with insect...

10/04/2023

Effects of Chemical Compounds on the Activity of the N-acetyl- β -D-Glucosaminidase of the Marine Prawn, *Palaemon serratus*: Screening In Vitro - Rollin - 2023 - Environmental Toxicology and Chemistry - Wiley Online Library

Authors: Rollin M, Coulaud R, Rocher B, Billoir E et al.

Source: Environmental Toxicology and Chemistry 2023, DOI 10.1002/etc.5567

Abstract: N-acetyl- β -D-glucosaminidase (NAGase) is important for crustaceans because the enzyme activity is necessary for the molting process. The present study aimed to assess the sensitivity of *Palaemon serratus* NAGase activity to a set of compounds of diverse chemical families in the context o...

29/03/2023

Effects of chronic exposure to toxic metals on haematological parameters in free-ranging small mammals

Authors: Powolny T, Scheifler R, Raoul F, Coeurdassier M et al.

Source: ENVIRONMENTAL POLLUTION 317: 120675, 2023, DOI 10.1016/j.envpol.2022.120675

Abstract: Blood circulates through the vascular system to carry oxygen, nutrients and metabolites to and away from tissues, and as such is a key-component of animal physiology. The impacts of metal pollution on blood, however, are poorly documented in free-ranging vertebrates. While the...

29/03/2023

Continuum from microplastics to nanoplastics: effects of size and source on the estuarine bivalve *Scrobicularia plana*

Authors: Metais I, Latchere O, Roman C, Perrein-Ettajani H et al.

Source: ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Early access, 2023, DOI 10.1007/s11356-023-25588-3

Abstract: Plastic has been largely detected in estuarine environments and represents major concern towards aquatic living organisms. The present study evaluates the impact of microplastics (MPs) and nanoplastics (NPs) under realistic exposure conditions. *Scrobicularia...*

29/03/2023

Using photocatalyzed-peroxonization to disinfect and denature genetic material of bacterial plasmids present in hospital wastewater

Authors: Dal Conti-Lampert A, Souza ALF, Testolin RC, Canan-Rochenbach G et al.

Source: JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING DOI 10.1080/10934529.2023.2175536

Abstract: The literature reports the presence of multiresistant microorganisms in wastewater discharged from municipal and hospital wastewater treatment plants (WWTPs). This has led to questions concerni...

29/03/2023

Insights into the molecular mechanisms of pesticide tolerance in the Aporetodea *caliginosa* earthworm

Authors: Barranger A, Klopp C, Le Bot B, Saramito G et al.

Source: Environmental Pollution 319: 120945, 2023, DOI 10.1016/j.envpol.2022.120945

Abstract: Diffuse pollution of the environment by pesticides has become a major soil threat to non-target organisms, such as earthworms for which declines have been reported. However some endogeic species are still abundant and persist in intensively cultivated fields, suggesting they become...

29/03/2023

Trace contaminants in the environmental assessment of organic waste recycling in agriculture: Gaps between methods and knowledge

Authors: Avadi A, Benoit P, Bravin MN, Cournoyer B et al.

Source: Book Series Advances in Agronomy 174: 53-188, 2022, DOI 10.1016/bs.agron.2022.03.002

Abstract: Agricultural recycling of organic waste (OW) derived from urban, agricultural and agroindustrial sources is an essential sustainable development strategy. Yet repeated application of nutrient-laden OW in crop fields can also drastically boost contaminant levels in soil. Thi...

29/03/2023

Prokaryotic, Microeukaryotic, and Fungal Composition in a Long-Term Polychlorinated Biphenyl-Contaminated Brownfield

Authors: Maucourt F, Cebon A, Budzinski H, Le Menach K et al.

Source: Microbial Ecology Early Access, 2023, DOI 10.1007/s00248-022-02161-y

Abstract: Polychlorinated biphenyls (PCBs) are recognized as persistent organic pollutants and accumulate in organisms, soils, waters, and sediments, causing major health and ecological perturbations. Literature reported PCB bio-transformation by fungi and bacteria in vitro, but data about the ...



30/04/2023

[tel-04085829] Développement d'un procédé électrochimique et de capteurs associés pour le traitement de perturbateurs endocriniens phénoliques dans les eaux

Depuis quelques années, des perturbateurs endocriniens phénoliques sont détectés à la sortie des stations d'épurations. Ce phénomène est lié à la résistance de ces composés aux traitements biologiques ce qui engendre leur introduction et leurs accumulation dans l'environnement. Le bisphénol A et les alkylphénols (4-NP, 4-OP et 4-tert-OP) font partie de la liste de ces substances récalcitrantes. Par conséquent, un procédé de traitement associé à des capteurs s'avère nécessaire.

theses.hal.science

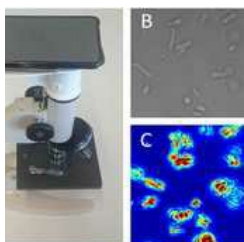


26/04/2023

How pesticides impact human health and ecosystems in Europe

Food production systems in Europe rely on chemical pesticides to maintain crop yields. However, widespread pesticide use is major source of pollution — contaminating water, soil and air, driving biodiversity loss, and leading to pest resistance. Human exposure to chemical pesticides is linked to chronic illnesses such as cancer, and heart, respiratory and neurological diseases. This briefing summarises the latest knowledge on how chemical pesticides impact human health and the environment, and pr...

www.eea.europa.eu

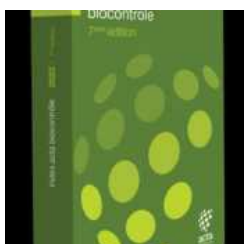


24/04/2023

Testing antibiotic resistance with a fast, cheap, and easy method

Researchers at EPFL and Vrije Universiteit Brussel have developed a novel and highly efficient method for rapid antibiotic susceptibility testing using optical microscopy. The technique, called Optical Nanomotion Detection, is extremely rapid, single-cell sensitive, label-free, and requires only a basic traditional optical microscope, equipped with a camera or a mobile phone.

www.eurekalert.org



20/04/2023

Parution " Index acta biocontrôle 2023", 7e édition

Le guide complet pour comprendre et bien utiliser le biocontrôle.

www.acta.asso.fr

12/04/2023

NRDC Analysis: Peer-Reviewed Study Finds EPA Misses PFAS Chemicals Already Present in Drinking Water

EPA Testing Limitations Underreport Widespread PFAS Contamination, Likelihood of Overlooking Polluted Communities

www.nrdc.org



09/03/2023

New report shows that alternatives to glyphosate do exist

This year the EU will decide on the re-approval of glyphosate, the active ingredient in Roundup, the world's most popular and controversial weed killer. Exposure to the herbicide not only poses a risk to human health and other living organisms, it also threatens biodiversity and the future of agriculture. Published in collaboration with the European Greens, PAN Europe's report shows that much safer non-chemical alternatives exist for all known major uses of glyphosate-based herbicides (GBH) and ...

www.pan-uk.org

REGLEMENTATION

14/04/2023

Autorisation de l'Union pour le produit biocide unique dénommé «Arche Chlorine»

RÈGLEMENT D'EXÉCUTION (UE) 2023/754 DE LA COMMISSION du 12 avril 2023 accordant une autorisation de l'Union pour le produit biocide unique dénommé «Arche Chlorine» conformément au règlement (UE) no 528/2012 du Parlement européen et du Conseil

Numéro officiel : UE/2023/754

Date de signature : 12/04/2023

14/04/2023

Non-renouvellement de l'approbation de la substance active «oxamyl»

Rectificatif au règlement d'exécution (UE) 2023/741 DE LA COMMISSION du 5 avril 2023 portant sur le non-renouvellement de l'approbation de la substance active «oxamyl» conformément au règlement (CE) n° 1107/2009 du Parlement européen et du Conseil, et modifiant le règlement d'exécution (UE) n° 540/2011 de la Commission

Numéro officiel : UE/2023/741

Date de signature : 14/04/2023

Liens juridiques : Rectification Règlement d'exécution UE/2023/741 05/04/2023

23/03/2023

LMR de de pyridabène, de pyridate, de pyriproxyfène et de triclopyr présents dans ou sur certains produits

RÈGLEMENT (UE) 2023/679 DE LA COMMISSION du 23 mars 2023 modifiant les annexes II et III du règlement (CE) no 396/2005 du Parlement européen et du Conseil en ce qui concerne les limites maximales applicables aux résidus de pyridabène, de pyridate, de pyriproxyfène et de triclopyr présents dans ou sur certains produits

Numéro officiel : UE/2023/679

Date de signature : 23/03/2023

Liens juridiques : Modification Règlement CE/396/2005 23/02/2005

01/03/2023

Non-approbation de certaines substances actives dans des produits biocides

DÉCISION D'EXÉCUTION (UE) 2023/458 DE LA COMMISSION du 1er mars 2023 relative à la non-approbation de certaines substances actives dans des produits biocides conformément au règlement (UE) n° 528/2012 du Parlement européen et du Conseil

Numéro officiel : UE/2023/458

Date de signature : 01/03/2023



27/04/2023

Peer review of the pesticide risk assessment of the active substance metiram

The conclusions of EFSA following the peer review of the initial risk assessments carried out by the competent authorities of the rapporteur Member State Italy and co-rapporteur Member State the United Kingdom for the pesticide active substance metiram are reported. The context of the peer review was that required by Commission Implementing Regulation (EU) No 844/2012, as amended by Commission Implementing Regulation (EU) No 2018/1659.

www.efsa.europa.eu

21/03/2023

ISO/AWI 19204 - Qualité du sol — Procédure d'évaluation des risques écologiques spécifiques au site de la contamination des sols (approche TRIADE de la qualité du sol)

Ce document a atteint le stade 20.00 - TC/SC: ISO/TC 190/SC 4

www.iso.org

DROIT ET POLITIQUE DE L'ENVIRONNEMENT

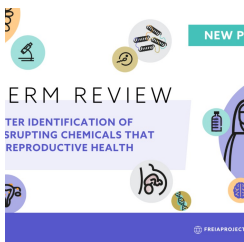


21/03/2023

Black & Veatch awarded Water Research Foundation grant to study PFAS water pollution

The Water Research Foundation (WRF) has awarded Black & Veatch (Overland Park, Kan.) a grant to investigate per- and polyfluoroalkyl substances (PFAS) in biosolids that pose a potential risk for the agricultural industry, food supply and ultimately, human health. The research project, Understanding the Value Proposition for Thermal Processes to Mitigate PFAS in Biosolids, will address the presence of these “forever chemica...

www.chemengonline.com



14/03/2023

Mid-term review of the FREIA project: updates and next steps on how novel research is helping identify endocrine disrupting chemicals that harm female reproductive health

To mark the start of the final stages of FREIA, the Health and Environment Alliance (HEAL) has teamed up with the research project to launch a review of its main findings and milestones of research into the effects of endocrine disrupting chemicals (EDCs) on female reproductive health thus far.

www.env-health.org

29/04/2023

THE CONVERSATION

Fur seals on a remote island chain are exposed to huge amounts of toxic heavy metals – yet somehow, they’re healthy

Their [fur seals] mysterious nature owes a lot to their seclusion on an archipelago of the same name 600km off the Chilean coast. These remote islands are situated in a protected national park – the last place you might expect to find animals exposed to high levels of pollution [toxic heavy metals]. But samples I collected and analysed with colleagues tell us something different.

theconversation.com



28/04/2023

Loi PFAS : enfin une réelle proposition politique

Générations Futures salue la proposition de loi visant à lutter contre les PFAS déposé par Nicolas Thierry, député écologiste à l'Assemblée Nationale.

www.generations-futures.fr

28/04/2023

Organophosphate (OP) Pesticides in Agricultural Area Residents’ Urine Year Round

A study published in Science of The Total Environment finds agricultural communities encounter chronic and measurable pesticide exposure regardless of seasonal pesticide applications. Several biomonitoring studies demonstrate people living adjacent to or within agricultural areas often experience elevated levels of organophosphate (OP) insecticides, even while not working directly with OPs.

beyondpesticides.org



27/04/2023

Pesticides : l'Union européenne peine encore à encadrer leurs usages

Malgré une réglementation ambitieuse, dans les faits, l'Union européenne tarde à encadrer et limiter l'usage des pesticides, et à favoriser l'émergence d'alternatives, selon d'anciens membres de la commission Pest du Parlement européen.

www.actu-environnement.com



27/04/2023

L'Agence européenne de l'Environnement alerte sur l'impact des pesticides en Europe sur la santé humaine et les écosystèmes

L'Agence européenne de l'Environnement (AEE) a publié le 26 avril une note sur l'impact des pesticides en Europe sur la santé et les écosystèmes. Cette note fait un état de lieux des données statistiques, de la contamination des milieux, de l'exposition des populations et des dangers que cela représente. Elle présente également les bonnes pratiques pour réduire leur utilisation et les risques dans toute l'Europe.

www.generations-futures.fr



26/04/2023

Social Manifesto on Pesticides: organisations call on dutch government to protect people and nature from harmful effects of pesticides

People and nature are not protected from the harmful effect of pesticides. So reads the alarming observation of a broad coalition of organisations in their manifesto in The Netherlands. The initiators are the Parkinson's Association, the trade union FNV and environmental organisation Natuur & Milieu. The manifesto has been signed by 36 organisations. The organisations are deeply concerned about the far-reaching effects of pesticides on animals, plants and water quality. But also about the hea...

www.pan-europe.info

25/04/2023

Petrochemical Pesticides and Fertilizers Linked to “Shocking” Health and Environmental Crises

Today, Beyond Pesticides released a special issue, Transformative Change: Informed by Science, Policy, and Action of its journal, Pesticides and You, with a compendium of “shocking scientific findings that compel us to act in our communities, states, and as a nation and world community.” The 168-page issue documents the last year of scientific, peer-reviewed articles, policy deficiencies, and action for change that intersect with petrochemical pesticides and fertilizers and existential health cri...

beyondpesticides.org

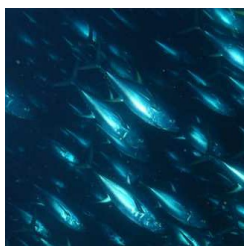


24/04/2023

Air pollution and children's health

While air pollution affects everyone, children and adolescents are particularly vulnerable because their bodies, organs and immune systems are still developing. Air pollution damages health during childhood and increases the risk of diseases later in life, yet children can do little to protect themselves or influence air quality policies. Until air pollution overall is reduced to safe levels, improving air quality around child-centric settings like schools and kindergartens can help reduce their ...

www.eea.europa.eu



23/04/2023

Polluants éternels : le milieu marin n'échappe pas à la contamination par les PFAS

Les PFAS polluent les terres et les eaux douces, mais également tous les océans du globe, où ils peuvent subsister pendant de très longues années.

theconversation.com

21/04/2023

More Data Shows Failure of Crops Genetically Engineered to Incorporate Insecticide

Into the annals of “entropic methods of agricultural pest control” arrives recent research showing that pests are, unsurprisingly, developing resistance to a genetically engineered (GE) biopesticide used for more than 90% of U.S. corn, cotton, and soybeans. Bt (*Bacillus thuringiensis*) is a naturally occurring bacterium; the versions deployed in conventional agriculture are engineered into Plant Incorporated Protectants (PIPs) — GE ingredients “inserted” into seeds for multiple kinds of crop plants.

beyondpesticides.org

18/04/2023



How is the UK Government planning to tackle exposure to endocrine disrupting chemicals?

At the end of March, rules to introduce new hazard classes for the classification, labelling and packaging of substances in the EU were published. This is a very important milestone towards much better protection from endocrine disrupting chemicals (EDCs) as it also includes a new category of suspected endocrine disruptors. [...] However, the [UK] government has now indicated that it's unlikely to adopt new EU classifications unless and until they are adopted at the international level, a process...

chemtrust.org

18/04/2023

France's Drinking Water Contaminated with Toxic Fungicide Chlorothalonil, Banned in EU but Widely Used in U.S.

Health officials in France are alerting the public that a majority of drinking water samples tested by the government contain the presence of the highly toxic fungicide chlorothalonil. The findings highlight a stark divide between regulations and public health management in the European Union and United States.

beyondpesticides.org



12/04/2023

Pesticides : les dérives sociologiques de l'institut agricole Inrae

Fruit de deux années de travaux, l'étude prospective de l'Inrae sur la fin des pesticides à l'horizon 2050 ressemble encore une fois davantage à une thèse de sociologues qu'à un rapport apportant des solutions concrètes pour améliorer les pratiques agricoles.

www.agriculture-environnement.fr

Le Monde

VIDÉOS - DÉBATS - CULTURE - LE GOÛT DU

11/04/2023

Tribune : Pollution : « La réglementation européenne sur les substances chimiques doit être révisée d'urgence »

Pollution : « La réglementation européenne sur les substances chimiques doit être révisée d'urgence »

Alors qu'une consultation publique visant à restreindre l'usage des « polluants éternels » (PFAS) a été lancée le 22 mars, des mutuelles et des organisations spécialisées en santé environnementale rappellent, dans une tribune au « Monde », l'urgence d'une actualisation ambitieuse du règlement européen sur les substances chimiques.

www.generations-futures.fr



11/04/2023

Yes, EU countries can ban glyphosate products - but Luxembourg made a mistake

On 30 March 2023, a Luxembourg administrative appeal Court canceled 8 decisions from the Luxembourg government to ban glyphosate-based herbicides (GBHs). The Court details that the ban of GBHs is possible but it needs to follow EU rules as laid down in Regulation (EU) 1107/2009 (hereafter "the pesticide regulation"). Following this judgment, Bayer (the major producer of glyphosate worldwide) stated that these bans were done in violation of EU law and without any scientific argumentation[1]. This ...

www.pan-europe.info



07/04/2023

[Phytoprotecteurs] Fongicide dans l'eau potable : « pas de risque sanitaire » selon le gouvernement

La présence généralisée de résidus d'un fongicide dans l'eau du robinet ne présente « pas de risque sanitaire » mais des « mesures plus régulières » du produit vont être mises en place, a souligné le gouvernement vendredi.

www.terre-net.fr

06/04/2023

Publication d'un nouveau rapport de l'ANSES sur la présence de substances chimiques dans l'eau

Génération Futures réagit. Ce 6 avril, l'Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail (ANSES) a publié les résultats de leur dernière campagne pour mesurer, dans l'eau destinée à la consommation humaine, la présence de composés chimiques qui ne sont pas ou peu recherchés lors des contrôles réguliers.

www.generations-futures.fr

06/04/2023

Impact screening on glyphosate: 'Into the Weeds' documentary

Think-Film Impact Production is organising a sneak-preview of 'Into the Weeds' documentary in Brussels in April 2023. The documentary covers the legal battle that San Francisco groundskeeper Dwayne Johnson took against Monsanto (now Bayer) for poisoning by glyphosate.

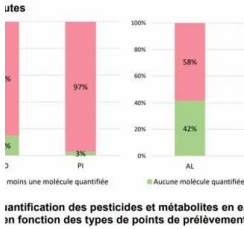
www.env-health.org

05/04/2023

Polluants éternels très inquiétants, les PFAS soumis à une consultation publique européenne

[Blog de Corinne Lepage] Suite à la consultation lancée par l'Agence européenne des produits chimiques, l'avocate Madeleine Babes lance un appel à contribution, pour lutter contre ces substances dangereuses, dont la présence nocive et omniprésente commence à alarmer en haut lieu.

www.actu-environnement.com



Identification des pesticides et métabolites en fonction des types de points de prélèvement



04/04/2023

Un fongicide tueur et perturbateur de la reproduction chez l'abeille

Le déclin des insectes et des espèces pollinisatrices observé à l'échelle mondiale est inquiétant. Les abeilles sauvages et domestiques sont des agents de pollinisation essentiels pour l'équilibre des écosystèmes, le maintien de la diversité floristique et la production agricole. Parmi les causes notables de ce déclin, se trouvent la perte et la fragmentation de l'habitat, les espèces envahissantes, les pathogènes et les pesticides. Bien que les effets de ces facteurs soient examinés attentive...

www.inee.cnrs.fr



04/04/2023

Le repli des phytos 'n'est pas terminé et le risque est qu'il s'accélère encore'

Pour le monde agricole en général, et celui viticole en particulier, le constat est là : l'arsenal phytosanitaire se réduit comme peau de chagrin. « Nous sommes confrontés à une réduction importante du nombre de substances actives au niveau européen. Ce mouvement n'est pas terminé et le risque est qu'il s'accélère encore.

www.vitisphere.com



04/04/2023

Contamination aux PFAS dans le Rhône : le suivi des œufs est élargi à 12 communes

Les résultats des prélèvements sur les œufs - indicateurs sensibles de la contamination aux substances perfluoroalkylées (PFAS) sont sans appel au sud de Lyon (Auvergne-Rhône-Alpes) : 26 analyses sur les 30 réalisées révèlent des valeurs qui dépassent les seuils fixés par le règlement sur les PFAS dans les denrées alimentaires.

www.actu-environnement.com



03/04/2023

New hazard classes for endocrine disruptors and persistent and mobile chemicals: an important milestone

Last Friday the EU rules to introduce new hazard classes for the classification, labelling and packaging of substances were finally published in the Official Journal of the European Union. It lays out newly established criteria for identifying endocrine disrupting properties of substances for the use across sectors. This is a world first.

chemtrust.org



31/03/2023

Sulfoxaflor Insecticide Likely Puts 63 Endangered Species in Jeopardy of Extinction

The Environmental Protection Agency released a final biological evaluation today showing that a single chemical, the bee-killing insecticide sulfoxaflor, is likely putting 4% of all endangered plants and animals in jeopardy of extinction.

www.centerforfoodsafety.org



30/03/2023

Polyrisk flyer: How micro- and nanoplastics in the environment might impact our health and immune system

While evidence of the existence of microplastics within our bodies exists, we currently do not know how they affect human health. This new Polyrisk flyer illustrates how this EU-funded project aims to advance the science of how MNPs in our environment impacts health, particularly in relation to the immune system.

www.env-health.org

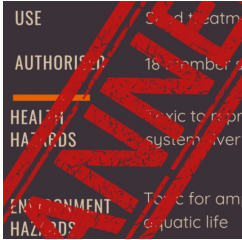


30/03/2023

Infographic: The impact of harmful pesticides on people's health and the environment

To answer some of the most frequently asked questions regarding the impact of harmful chemicals on people's health and the environment, the Health and Environment Alliance (HEAL) has launched a new easy-to-use infographic and supporting social media assets.

www.env-health.org



29/03/2023

EU finally bans 2 very toxic pesticides - including one of the Toxic 12

Two very toxic pesticides will be banned in Europe from 2024. EU Member States agreed on this in their meeting on March 23rd. They are both banned because of their high toxicity to human health and the environment. The fungicide Ipconazole - part of our Toxic 12 list - was classified as toxic to the development of unborn children back in 2018 and should have been banned right then. The insecticide Oxamyl should have been banned in 2016 when the original authorisation expired. The fate of another ...

www.pan-europe.info



28/03/2023

Belgium, kingdom of pesticides

One in four pesticide authorisations in Belgium are for products that are potentially carcinogenic, toxic for reproduction, harmful to infants or have endocrine-disrupting effects (hormone disruption). This is exposed in our new report, in cooperation with our member Nature & Progrés Belgique. The Belgian practice is not in line with the European legislation, that clearly defines the obligations of the Member States when assessing the risks and authorising pesticides.

www.pan-europe.info



25/03/2023

[Insecticide] La France interdit l'importation et la vente de cerises traitées au phosmet

La France a mis en place une interdiction d'importer des cerises traitées au phosmet, un insecticide déjà interdit dans le pays, selon un arrêté daté du 16 mars, publié samedi au journal Officiel.

www.terre-net.fr



24/03/2023

ECHA's Risk Assessment Committee backs PFAS ban in firefighting foams

ECHA's Committee for Risk Assessment (RAC) supports the proposed restriction on per- and polyfluoroalkyl substances (PFAS) in firefighting foams. The draft opinion of the Committee for Socio-Economic Analysis (SEAC) is open for consultation until 15 May.

echa.europa.eu



23/03/2023

[Étude prospective] « Une agriculture européenne possible sans pesticides chimiques en 2050 »

L'agriculture européenne pourrait-elle produire sans pesticides chimiques d'ici 2050 ? Une étude prospective de l'Inrae a exploré trois scénarios montrant que la transition est possible, à condition de profonds changements des politiques publiques.

www.terre-net.fr



23/03/2023

Nouveau consensus scientifique : l'agroécologie appliquée à la protection de cultures pour une agriculture sans pesticides

Une étude signée par plus de 56 scientifiques témoigne, une nouvelle fois, du large consensus scientifique français sur la protection agroécologique des cultures. Plus de 300 références bibliographiques ont été compilées pour parvenir à cette conclusion.

www.generations-futures.fr

23/03/2023

Death Tied to 1,3-D (Telone) Fumigant Highlights Sensitivity of the Brain to Pesticide Exposure

A case report article published in Frontier in Public Health confirms one of the first reported deaths from inhalation of the fumigant 1,3-dichloropropene (1,3-D or Telone) during work, resulting in acute renal (kidney) failure, hyperkalemia (high potassium levels in the blood), and brain edema (swelling). 1,3-D is a highly toxic fumigant used on a variety of crops, but primarily on potatoes, tobacco, strawberries, peanuts, and tomatoes to manage unwanted nematodes in soils.

beyondpesticides.org



21/03/2023

Seabirds that swallow ocean plastic waste have scarring in their stomachs – scientists have named this disease 'plasticosis'

Many marine animals, birds and fish are ingesting plastic. New research identifies the first named health effect from it.

theconversation.com

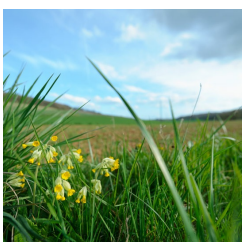


21/03/2023

Agriculture européenne sans pesticides chimiques en 2050 : c'est possible !

Ce mardi 21 mars 2023, l'INRAe (Institut de recherche public sur l'agriculture) présente dans le cadre d'un colloque son travail de recherche au titre éloquent : « Agriculture européenne sans pesticides chimiques en 2050 ».

www.generations-futures.fr



20/03/2023

Semaine pour les alternatives aux pesticides

Du 20 au 30 mars, c'est la semaine pour les alternatives aux pesticides. Ateliers, conférences, portes ouvertes, projections de films... comme chaque année, des centaines d'événements sont organisés localement dans toute la France par des acteurs du territoire. Avec un objectif : promouvoir les alternatives existantes, efficaces et durables aux pesticides de synthèse.

www.ecologie.gouv.fr



20/03/2023

Pollution de l'air - Les particules issues des pneus ont un impact sur la santé

Lorsqu'on roule, l'usure des pneus émet des particules de différentes tailles. Un groupe de scientifiques alerte sur leur impact sur la santé. Pourtant, cette source de pollution est peu prise en compte dans les politiques publiques.

www.quechoisir.org



17/03/2023

Glyphosate, néonicotinoïdes : comment l'Anses peut renforcer la crédibilité de ses expertises

Dans un rapport, publié le 10 mars, le conseil scientifique de l'Anses émet plusieurs recommandations visant à limiter les risques de mise en cause de ses expertises. Un rapport qui fait couler beaucoup d'encre suite à sa mise en ligne très discrète par l'Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail, révélée par le journal Le Monde.

www.reussir.fr



15/03/2023

Le retard de la Commission européenne dans la réforme des produits chimiques met en danger la santé humaine, l'environnement et la compétitivité de l'industrie. Etude du BEE.

La réforme tant attendue de la loi européenne sur les produits chimiques, REACH, pourrait avoir un impact positif important sur la santé humaine et l'environnement, le fonctionnement de l'économie circulaire, mais aussi la compétitivité et le potentiel d'innovation de l'industrie européenne. Pourtant, le 18 octobre 2022, la Commission européenne a cédé à la pression de l'industrie chimique allemande et a annoncé, dans son programme de travail pour 2023, un retard de 12 mois pour la publication d...

www.canopea.be



14/03/2023

Over 100 organisations call on the European Commission to fully ban PFAS by 2030

The EU Chemicals Agency (ECHA) published the draft proposal for an EU-wide restriction on the production and uses of per- and polyfluoroalkyl substances (PFAS), starting a much needed process to restrict these 'forever chemicals'

www.env-health.org

14/03/2023

Implications for Human Health: Work-Related Pesticide Exposure Increases Sleep Disorder Risk

A study published in Environmental Research and Public Health finds occupational pesticide exposure increases the risk of sleep disorders among farmworkers and pesticide applicators. Specifically, many pesticides, like organophosphates (OPs), are detrimental to neurological function through inhibition of the enzyme acetylcholinesterase (AChE) responsible for ending a neurotransmission event after relaying the necessary information.

beyondpesticides.org

09/03/2023

Prenatal Pesticide Exposure Threatens Children's Language Development at 18 Months after Birth, Study Finds

A study published in Environmental Research finds exposure to organophosphate (OP) compounds during pregnancy, or prenatal OP exposure can cause shortfalls in language development abilities at 18 months, stifling preschool-age language expression. Additionally, a timely and co-occurring study published in Environmental International confirms similar results, highlighting that chlorpyrifos (an organophosphate) impedes neurological and psychological development, including language communication and...

beyondpesticides.org



08/03/2023

Biden-Harris Administration Proposes Stronger Limits on Water Pollution from Power Plants

Today the Biden-Harris Administration announced it is proposing to strengthen wastewater discharge standards that apply to coal-fired power plants. The U.S. Environmental Protection Agency (EPA) proposal follows the latest science and applies EPA's longstanding authority under the Clean Water Act to reduce discharges of toxic metals and other pollutants from these power plants into lakes, streams, and other waterbodies. The proposed rule would help protect our nation's vital water resources that

...

www.epa.gov

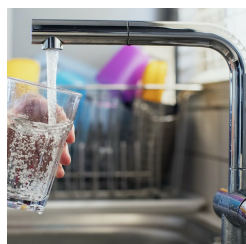


08/03/2023

La FNSEA et l'autorisation des pesticides : LOBBYING ET GROSSES FICELLES

Dans un nouveau rapport publié ce jour Générations Futures proteste contre la présentation caricaturale du système l'homologation des pesticides faite par la FNSEA ces dernières semaines et les pressions du syndicat pour affaiblir le système d'homologation de ces pesticides !

www.generations-futures.fr



07/03/2023

Regulating 'forever chemicals': 3 essential reads on PFAS

The Biden administration is finalizing the first federal limits on two compounds, PFOA and PFOS, in drinking water. These so-called 'forever chemicals' have been linked to numerous health effects.

theconversation.com

07/03/2023

Glyphosate Exposure Associated with Liver and Metabolic Disorders in Children, Young Adults

Exposure to glyphosate (Roundup) and its breakdown products is associated with an increased risk of liver and metabolic disorders in children and young adults, according to research published in Environmental Health Perspectives earlier this month. While glyphosate has developed a well-deserved reputation as a carcinogen, research is finding that cancer is one of a myriad of chronic diseases associated with the notorious chemical. As this body of literature grows, growing awareness by the public ...

beyondpesticides.org

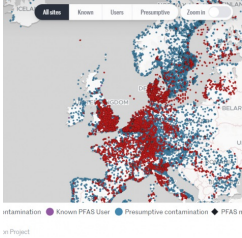


06/03/2023

François Dedieu, sociologue : « La toxicologie réglementaire reste aveugle à une diversité d'effets possibles des pesticides »

Dans un entretien au « Monde », François Dedieu déplore le manque d'efficacité et la lenteur des mesures prises par les pouvoirs publics et l'Etat pour endiguer les dangers dus aux herbicides, fongicides et autres insecticides. Réservé aux abonnés

www.lemonde.fr

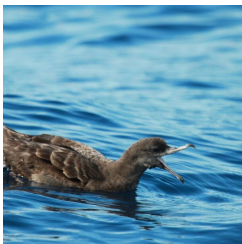


06/03/2023

PFAS omniprésents : à quand la réelle action politique ?

Sujet qui devient de plus en plus présent dans les médias, la pollution aux PFAS (les perfluorés – pour en savoir plus lire ici) est un enjeu majeur de notre siècle. Générations Futures, active sur le sujet depuis plusieurs mois, revient sur la récente enquête publiée par le quotidien le Monde et d'autres journaux d'investigation.

www.generations-futures.fr



03/03/2023

Plasticosis: A new disease caused by plastic that is affecting seabirds

A new disease has been described in seabirds, but it might just be the tip of the iceberg. Rather than being caused by viruses or bacteria, "plasticosis" is caused by small pieces of plastic which inflame the digestive tract. Over time, persistent inflammation causes tissues to become scarred and deformed, with knock-on effects on growth, digestion and survival.

phys.org



02/03/2023

Biopesticides should be preferred over chemical pesticides for fall armyworm control, study suggests

Safer-to-use and more environmentally-friendly biopesticides should be preferred to fight the fall armyworm (*Spodoptera frugiperda*) pest instead of more harmful chemical pesticides, a new CABI-led study published in the Journal of Pest Science suggests. CABI scientists teamed up with colleagues from Ghana's CSIR-Savanna Agricultural Research Institute (SARI), the University for Development Studies (UDS) and the Plant Protection and Regulatory Services Directorate (PPRS) to investigate the effec...

www.eurekalert.org

02/03/2023

Pesticide Exposure and the Link to Irritable Bowel Syndrome (IBS)

Populations experiencing higher levels of environmental pollutant exposure, specifically pesticides, also experience a higher rate of irritable bowel syndrome (IBS), according to a study published in Environmental Toxicology and Pharmacology. IBS is a gastrointestinal disorder that causes abdominal pain or discomfort and changes in bowel behaviors.

beyondpesticides.org