



Last events and news related to the nocturnal harvesting in super-intensive olive groves and its potential impacts on birds.

Carlos Ruiz.
SEO/BirdLife



At the end of 2017 some photographs came to light, related to a possible bird mortality due to nocturnal harvesting in super intensive olive grove.



Internal report from the Ministry of environment and spatial planning of the regional Government of Andalucía

It makes some alarming estimations:

- At least 2 600 000 birds being affected
- Up to 100 birds/hectare

Lack of scientific rigour:

- No description of the methodology (sample size, variables...)

JUNTA DE ANDALUCÍA

CONSEJERÍA DE MEDIO AMBIENTE Y ORDENACIÓN DEL TERRITORIO
Dirección General de Gestión del Medio Natural y Espacios Protegidos

Magnitud y extensión del problema

Como consecuencia, las cosechadoras de superintensivo que operan desde noviembre en horas nocturnas llegan a producir unas tasas de mortalidad insostenible en términos ambientales, que alcanzan las 100 aves por remolque cosechado, lo que ofrece unas tasas de mortalidad de media aproximada de 100 aves por hectárea cosechada durante la noche.

Teniendo en consideración la extensión en hectáreas que Andalucía dedica a este tipo de olivar y considerando la distribución de rutas de aves migratorias, todo apunta a que cada campaña olivarera de superintensivo, en la que se cosecha durante la noche, **las estimas más conservadoras apuntan a que esta práctica estar afectando a 2.600.000 aves cada año en Andalucía**, especialmente en las provincias de Sevilla, Córdoba y Jaén, según la información obtenida por la CMAOT.

Además del daño evidente producido por la muerte directa de un número de aves protegidas tan abrumador, debe destacarse que la extensión del problema trasciende la vertiente ambiental. Al parecer, y según ha constatado tanto la Guardia Civil como la CMAOT, una buena parte de estas aves son vendidas por los operarios de las cosechadoras y/o cooperativas al mundo de la hostelería rural, para consumo como "pajarito frito". Esta práctica es ilícita y altamente perseguida por la Consejería competente en materia de Salud por carecer de las suficientes garantías sanitarias para la salud pública.



We requested more information

A [letter](#) about this issue is published in Nature.

Based on the previous report and on another study from a single olive grove in Portugal

Correspondence

Stats: how useful is the treatment?'

I disagree that the current misuse of *P* values in biomedical science could be solved by 'retiring' statistical significance (V. Amrhein *et al. Nature* 567, 305–307; 2019).

Like it or not, some of the blame for current practices lies in researchers' infatuation with simply disproving the null hypothesis. They often see this as a more 'objective' way of doing science: collect data and let the decision about its importance be made by statistics.

The real question is whether a treatment effect is important, not whether it differs 'significantly' from a control. To answer this, the researcher should justify beforehand how large the effect size needs to be. Then, if a 10% improvement over the control is required, the probability that this has been attained can be calculated from the data using familiar statistical tools for hypothesis testing and sample-size determination.

Matthew Kramer Northeast Area Statistics Group, US Department of Agriculture, Beltsville, Maryland, USA. matt.kramer@ars.usda.gov

Stats: researchers' lust for certainty

Testing for statistical significance should be an aid to interpreting scientific results, and — when applied sensibly — to decision-making. It should not be a mindless quest for verification (see V. Amrhein *et al. Nature* 567, 305–307; 2019). In my experience, the correction of *P* values for multiple testing — a valuable tool in the fight against *P* hacking and in the proper interpretation of genome-wide association studies, for example — is being comparably abused through ignorance.

Too often, I find myself

up against criticisms from reviewers who draw no distinction between tests carried out on evidence-weighted, mechanistically legitimate risk variables and tests applied to ad hoc collections of measurements (roughly akin to grandmothers' dogs' tail lengths). The distinction was spelt out more than 20 years ago (T. V. Perneger *Br. Med. J.* 316, 1236–1238; 1998). That nobody took any notice shows how tight a grip the lust for certainty — neatly dubbed by Amrhein and colleagues as "dichotomania" — has on a researcher's psyche.

Ian F. Godsland Imperial College London, UK. i.godsland@imperial.ac.uk

Stats: choose meta-analyses

Valentin Amrhein and colleagues correctly point out (*Nature* 567, 305–307; 2019) that *P* values should not be used to classify scientific results as significant or non-significant (widely misinterpreted as 'true' or 'not true', respectively). However, scientists — in their dispositional revulsion towards subjectivity — routinely make a broader error.

Too many biomedical researchers still believe that single papers prove scientific points. If that were the case, the *P* values associated with the experiments would be important, and we could argue about what they mean and where significance thresholds should be set. Clinical scientists were disabused of this idea years ago: the results of meta-analyses routinely make a mockery of the conclusions of individual experiments.

Most high-profile preclinical papers describe multiple experiments that either depend on each other or converge on a conclusion (see J. S. Mogil and M. R. Macleod *Nature* 542, 409–411; 2017). The *P* value of each

experiment is hardly relevant: the question is how many independent experiments were done in which the observed effect supports the conclusion. Even then, that conclusion would be valid only for the set of circumstances pertaining to those particular experiments.

For every conclusion, there is evidence for, evidence against, and uncertainty as to how far it can be generalized. Results are always provisional, *P* values or no.

Jeffrey S. Mogil McGill University, Montreal, Quebec, Canada. jeffrey.mogil@mcgill.ca

Cut risk of chemical factory explosions

The huge explosion in March at the Tianjiayi Chemical Company's plant in China could have been prevented had safety lessons been learnt from previous accidents (see Z. Tang *et al. Nature* 525, 455; 2015).

China's chemical and petroleum industry has grown markedly since 2003 (see, for example, go.nature.com/2uatdxa). The number of chemical accidents has risen as a result. The problem needs to be tackled on several fronts, including through stricter legislation and more comprehensive risk assessment and control, backed by international collaboration on scientific research and technology (B. Wang *et al. Sci. Total Environ.* 643, 1–11; 2018). Implementing these tightened safety standards is essential as Chinese chemical factories proliferate into southeast Asia, Africa and South America under the auspices of the Belt and Road Initiative and the Asian Infrastructure Investment Bank. International compliance with the Strategic Approach to International Chemicals Management (go.nature.com/2ubn9v5), a global policy framework hosted by the United Nations Environmental

Programme, will be crucial to protecting these developing regions.

Hong Yang University of Reading, UK. hongyanghy@gmail.com

Olive harvest at night kills birds

From October to January, millions of birds from central and northern Europe winter in the Mediterranean basin. Suction olive harvesting at night kills these legally protected birds on a catastrophic scale as they rest in the bushes. This year, Spain's Andalusian government recommended that the practice be stopped; currently, an estimated 2.6 million birds are vacuumed up annually in the country (see go.nature.com/2zkoms). Other big olive-producing countries should follow their lead.

Some 96,000 birds die in Portugal annually as a result of night-time olive harvesting (see, for example, go.nature.com/2zgy7ml). The Portuguese government has so far taken no action; France and Italy remain silent.

The trees are stripped at night because cool temperatures help to preserve the olives' aromatic compounds. Local governments and local, national and international communities urgently need to assess the impact of the practice and take steps to end it.

Luis P. da Silva, Vanessa A. Mata Research Center in Biodiversity and Genetic Resources, Vairão, Portugal. vanessamata@cibio.up.pt

CONTRIBUTIONS

Correspondence may be submitted to correspondence@nature.com after consulting the author guidelines and section policies at <http://go.nature.com/cmchno>.

SEO/BirdLife has published a press release

There is not enough data
More information have been requested
Cautionary principle must be applied to temporarily stop nocturnal harvesting
We urge the authorities and the olive sector to start a working plan to assess the problem



NOTA DE PRENSA

www.seo.org

SEO/BirdLife y SPEA reclaman medidas ante el impacto sobre las aves invernantes de la recolección nocturna en el olivar superintensivo

- De momento no se dispone de una evaluación contrastada desde el punto de vista técnico y científico, pero la detección repetida de casos de mortalidad de aves en la recolección nocturna mecanizada en el olivar superintensivo, es motivo suficiente para poner en marcha medidas preventivas de cara a la próxima campaña.
- SEO/BirdLife y SPEA han pedido en reiteradas ocasiones a las administraciones ambientales información sobre la evaluación de este problema, sin haber recibido todavía respuesta.
- Este es un caso más que ilustra la necesidad de asegurar la compatibilidad de la agricultura intensiva con la conservación de la biodiversidad, en un momento clave para el futuro de la Política Agraria Comunitaria (PAC).

Madrid 22 de mayo, 2019. Desde principios de enero de 2018, han salido a la luz indicios de la muerte accidental de aves en la recolección nocturna de aceitunas en el olivar superintensivo o en seto. Desde entonces, SEO/BirdLife ha tratado de obtener información sobre este problema, tanto del sector del aceite de oliva, como desde la Administración Ambiental.

An answer has been sent to Nature: A cautionary note for claims about the impact of nocturnal harvesting on songbirds

Overestimation of the impact. Unrepresentative set of olive groves, then extrapolated to the whole area:

- The use of space by birds is not homogeneous.
- Not all the intensive olive farming area is harvested at night.

Based in internal reports.

- No administrative repercussion.
- No description of survey effort.
- Imprecise about the prohibition by the Andalusia regional Government.

The problem is real (mortality + consumers behaviour)

A reflection about nocturnal harvesting. A further step forward in the intensification model. Is it really necessary?, Do consumers accept it?

A coordinated action needs to be taken

Objectives:

1. To provide accurate and reliable information to the consumers and to the public
2. To establish precautionary measures.
3. To perform a rigorous study to assess the impact of nocturnal harvesting on birds.
4. To design the best solutions to avoid this potential impact..

<https://www.ecologistasenaccion.org/wp-content/uploads/2018/11/informe-sobre-el-impacto-generado-por-la-explotacion-del-olivar-en-superintensivo-sobre-las-especies-protegidas-en-andalucia.pdf>

<https://www.nature.com/magazine-assets/d41586-019-01456-4/d41586-019-01456-4.pdf>

<https://www.seo.org/2019/05/22/reclamamos-medidas-ante-el-impacto-sobre-las-aves-invernantes-de-la-recoleccion-nocturna-en-el-olivar-superintensivo/>