

# CV Summary - Prof. Dr. Nicolas Mathevon

University of Saint-Etienne - Ecole Pratique des Hautes Etudes-PSL - Institut universitaire de France  
ENES Bioacoustics Research Laboratory - eneslab.com  
CRNL, CNRS UMR5292 Inserm UMRS1028, 23 rue Michelon, 42023 Saint-Etienne Cedex 2, France  
ORCID 0000-0003-0219-6601 - Tel: 33 (0) 6 82 53 31 92- mathevon@univ-st-etienne.fr  
Born 7 August 1967; married; three children.



## Education

2002 *Habilitation à diriger les Recherches*, University of Saint-Etienne, France  
1996 Ph.D. in Animal Behavior (summa cum laude), University of Orsay-Paris XI, France  
1991 Teaching Degree (*Agrégation*) in Life and Earth Sciences (ranked 8<sup>th</sup> over 1500), France

## Current positions

2023-present Associate Director of Studies, Ecole Pratique des Hautes Etudes - Paris-Sciences-Lettres University  
2021-present Senior member (renewed), Institut universitaire de France (IUF) (N.B. less than 1% of French university academics have a senior IUF position; less than 0.001% have obtained a Junior IUF position followed by a Senior IUF position twice).  
2005-present Full Professor (*Distinguished*, PR EX2), Neurosciences and Animal Behavior (Bioacoustics), Univ Saint-Etienne.  
2002-present Director of the ENES Bioacoustics Research Lab (CNRS UMR5292 Inserm UMRS1028; Ranked “A+” (highest rank) by the High Council for Evaluation of Research and Higher Education. The ENES Lab is a member of the *Scientific Network of Excellence* LABEX CeLyA (Center of Acoustics, University of Lyon).

## Previous positions

2024 Miller Visiting Professor, University of California, Berkeley, USA  
2017-2021 Senior member, Institut universitaire de France  
2015-2016 Visiting Full Professor, Hunter College (Dpt of Psychology), City University of New York, New York, USA  
2010-2012 Invited Senior Researcher, Centre National de la Recherche Scientifique (CNRS)  
2008-2009 Miller Visiting Professor, University of California, Berkeley, USA  
2005-2010 Junior member, Institut universitaire de France  
1999-2005 Associate Professor, University of Lyon/Saint-Etienne, France

## Fellowships and Awards

2024 RR Hawkins Award & PROSE Award for Excellence (Association of American Publishers)  
2022 “Man-Nature” Prize, François Sommer Foundation  
2004-present Bonus for Outstanding Research (Prime d’Excellence Scientifique PES/PEDR)  
French National Council of Universities (N.B. this award is re-evaluated every four years)  
2022 Elected member of the *Academia Europaea*  
2005, 2016, 2021 Nominated member of the *Institut universitaire de France* (IUF)  
2017 *Chevalier des Palmes Académiques* (French Honorary Title for Outstanding Career in Education and Research)  
2011 Nominated “Distinguished Professor” by the French National Council of Universities  
2007 Nominated “First Class Professor” by the French National Council of Universities

## Teaching activities

2023-present Director of the “Tropical Bioacoustics School” (2-weeks intensive graduate field course, Univ.St-Etienne)  
2021-present Deputy Director of the graduate cursus “International master of Bioacoustics” (Univ.St-Etienne)  
2017-present Director of the “Bioacoustic Winter School” (2-weeks intensive graduate course, Univ.St-Etienne)  
2011-2021 Director of the graduate cursus (master) “Ethology”, Univ.St-Etienne  
1994-2011 Director of the Biology-Geology *CAPES* (Preparation for high-school teacher competition), Univ. St-Etienne  
2000-2020 Introductory Course in Animal Behaviour, *Agrégation* cursus, Ecole Normale Supérieure de Lyon, France

## Supervision of Graduate (PhD) students and postdoctoral fellows

2002-present 12 Postdocs, 18 PhD, numerous Master students. Main professional achievements of supervised students: Senior Researcher, CNRS, France (I. Charrier); Full Professor, Sorbonne University, France (C. Vignal); Junior Researcher, CEREMA, France (C. Curé); Research Manager, University of Bordeaux, France (A. Vergne); Assistant Professor, Portsmouth University, UK (E. Gustaffson); Scientific Manager Animal Experimentation Platform, Université Catholique de Louvain, Belgium (S.Mouterde).

## Organization of Scientific Meetings

2018 Co-Chairman “International BioAcoustics Congress IBAC2018”, Brighton, UK  
2016 Co-Chairman “IBAC2016”, Haridwar, India  
2012 Organizer, Congress of the French Society for the Study of Animal Behavior, Saint-Etienne, mai 2012, 135 participants  
2011 Co-organizer, XXIII<sup>e</sup> International BioAcoustic Congress, La Rochelle, septembre 2011, 174 participants  
2010 Co-organizer, Annual Conference of the Institut universitaire de France Saint-Etienne, mars 2010, 120 participants

## Institutional responsibilities

2017-present Member of the Executive Committee of the Labex CeLyA  
2008-2020 Member of the Scientific Council, University of Saint-Etienne, France  
2012-2018 Member of the French National Council of Universities (CNU 69, Neurosciences), France  
2010-2012 Member of the Advisory Board, Institut universitaire de France (IUF), France  
2006-2011 Member of the “Agrégation” Evaluation Committee, France.

## Reviewing activities

Referee for a number of international journals. In charge of 4-6 grant reviews/year for research organisms (from France and abroad). Numerous participations to PhD and Habilitation evaluation boards.

## Scientific Societies

2017-2023 President (elected) of the International BioAcoustics Society IBAC

Member of the IUCN-SSC Crocodile Specialist Group, Animal Behavior Society (ABS), French Society for the Study of Animal Behaviour (SFECA), Société des Explorateurs Français.

## Research interests

### Function and Evolution of Acoustic Communication in Animals and Humans.

**Collaborations:** Dr. JY Barnagaud, acoustic biogeography, EPHE, France; Dr. I Charrier, acoustic communication in marine mammals, CNRS, France; Dr. N Grimault, crocodilian & hippo bioacoustics, CNRS; Dr. F Jouen, human baby cries, EPHE, France; Dr. F Levréro, Communication network in the striped mouse, Univ Saint-Etienne, France; Dr. D Lecchini, acoustic monitoring of coral reefs, EPHE, France; Prof. H Patural, long-term monitoring of cries in neonates, Univ Saint-Etienne; Dr. R Peyron, brain activation induced by human baby's cries, Univ Saint-Etienne; Prof D Reby, Human non-verbal acoustic communication, Univ. Saint-Etienne; Dr. C Reichmuth, acoustic communication in pinnipeds, Univ Calif, Santa Cruz, USA; Prof F Theunissen, information coding in acoustic signals, Univ Calif, Berkeley, USA.

## Grants (PI)

2024-2026 Baby cries as a prognostic tool. **AXA Foundation, € 970,000.**

2024 Visiting Miller Professorship, University of California, Berkeley. **Miller Institute, \$20,000.**

2021-2026 A world of sounds: From acoustic signals to soundscapes. **Institut universitaire de France, €75,000.**

2021-2023 Data storage and sound analysis platform. **University of Saint-Etienne, € 85,000.**

2020-2021 Vocal plasticity in the song of the screaming piha bird. **Université de Saint-Etienne, € 10,600.**

2020-2021 Vocal-tract anatomy and acoustic displays in the elephant seal. **Université de Saint-Etienne, € 6,600.**

2020-2024 The baby's cry: an integrative approach. **Agence Nationale de la Recherche, € 366,345.**

2016-2021 The social and environmental fabric of acoustic communication. **Institut universitaire de France, € 75,000.**

2019-2020 Between air and water: The acoustic world of crocodiles. **National Geographic Society, \$ 24,750.**

2019-2020 Sound localization in crocodilians. **Université de Saint-Etienne, € 9,000.**

2017-2018 The baby's cry. **Foundation of the University of Saint-Etienne, € 20,000.**

2014-2015 Mother-young acoustic communication in crocodilians. **National Geographic Society, \$ 20,900.**

2012-2013; 2017 The Human baby's cry. **Université de Saint-Etienne, € 25,400, € 15,000.**

2011-2015 Acoustic partnership: vocal communication at the cornerstone of monogamy in birds. **Agence Nationale de la Recherche, € 500,000.**

2010-2012 Auditory scene analysis in the songbird. **France-Berkeley Fund, \$10,000.**

2008-2009 Visiting Miller Professorship, University of California, Berkeley. **Miller Institute, \$39,000.**

2007-2010 Birds' voices: multi-levels integration of neuronal signals during vocal recognition in a songbird communication network. **Agence Nationale de la Recherche, €234,000.**

2006-2010 Evolution of animal communication. **Institut universitaire de France, € 75,000.**

2005-2006 Vocal recognition in songbirds. **Région Rhône-Alpes, €40,000.**

2002-2004 Vocal recognition in songbirds: ethological and biophotonical approach. **CNRS, €60,000.**

## Representative publications (120 in total; h-index = 43)

1. Charrier I, Mathevon N, Jouventin P., 2001. Mother's voice recognition by seal pups. **Nature**, 412:873.
2. Vignal C, Mathevon N, Mottin S, 2004. Audience drives male songbird response to partner's voice. **Nature**, 430:448-451.
3. Vergne A, Mathevon N, 2008. Crocodile egg sounds signal hatching time. **Current Biology**, 18:R513-R514.
4. Gustafsson E, Levrero F, Reby D, Mathevon N, 2013. Fathers are just as good as mothers at recognizing the cries of their baby. **Nature Communications**, 4:1698.
5. Mouterde S, Theunissen F, Elie JE, Mathevon N, 2014. Learning to cope with degraded sounds: Female zebra finches can improve their expertise at discriminating between male voices at long distance. **Journal of Experimental Biology**, 217:3169-3177.
6. Ben-Aderet T, Gallego-Abenza M, Reby D, Mathevon N, 2017. Dog-directed speech: why do we use it and do dogs pay attention to it? **Proceedings of the Royal Society B**, 284 :20162429.
7. Mouterde S, Elie J, Mathevon N, Theunissen F, 2017. Single neurons in the avian auditory cortex encode individual identity and propagation distance in naturally degraded communication calls. **The Journal of Neuroscience**, 37:3491-3510.
8. Mathevon N, Casey C, Reichmuth C, Charrier I, 2017. Northern elephant seals memorize the rhythm and timbre of their rivals' voices. **Current Biology**, 27:2352-2356.
9. Marin-Cudraz T, Muffat-Joly B, Novoa C, Aubry P, Desmet JF, Mahamoud-Issa M, Nicolé F, Van Niekerk MH, Mathevon N, Sèbe F, 2019. Acoustic monitoring of rock ptarmigan: A multi-year comparison with point-count protocol. **Ecological Indicators**, 101:710-719.
10. Bouchet H, Plat A, Levréro F, Reby D, Patural H, Mathevon N, 2020. Baby cry recognition is independent of motherhood but improved by experience and exposure. **Proceedings of the Royal Society B**, 287:20192499.
11. Garcia M, Theunissen F, Sèbe F, Clavel J, Ravignani A, Marin-Cudraz T, Fuchs J, Mathevon N, 2020. Evolution of communication signals and information during species radiation. **Nature Communications**, 11:4970.
12. **Book:** Aubin T, Mathevon N (Eds), 2020. Coding strategies in Vertebrate acoustic communication. **Springer**.
13. Thévenet J, Grimault N, Fonseca P, Mathevon N, 2022. Voice-mediated interactions in a megaherbivore. **Current Biology**, 32:R55-R71.
14. Corvin S, Fauchon C, Peyron R, Reby D, Mathevon N, 2022. Adults learn to identify pain in babies' cries. **Current Biology**, 32:R807-R827.
15. **Book:** Mathevon N, 2023. The Sounds of Nature: How and Why Animals Communicate. **Princeton University Press**.
16. Massenet M, Philippe R, Pisanski K, Arnaud V, Barluet L, Reynaud K, Mathevon N, Reby D, 2024. Puppy whines mediate maternal behavior in domestic dogs. **Proceedings of the National Academy of Sciences**, 121:2316818121.
17. Minier L, Rouch J, Sabbagh B, Bertucci F, Parmentier E, Lecchini D, Sèbe F, Mathevon N, Emonet R, *in press*. Visualization and quantification of coral reef soundscapes using CoralSoundExplorer software. **PLoS Computational Biology**.
18. **Book:** Mathevon N, 2025. Comprendre son bébé. Le langage secret des pleurs. **Tana Editions**.

**Conferences** Invited conferences: Columbia univ, NY; Brooklyn College, NY; Queens' College, NY; Univ Calif, Berkeley; National Geographic Society, Washington; Max Planck Institute for Ornithology, Linnean Society of London... Numerous oral communications in international conferences; numerous posters.

**Public outreach** Numerous articles in popular journals (The New York Times, Le Monde, etc); Participation to movies; Numerous conferences for the general public in France and abroad; Numerous conferences in high schools; Interviews -radio, TV.