# Serhii Khomenko

Disease Ecology, Wildlife and Animal Health Expert with extensive international experience and excellent GIS and data visualization skills



#### **EXPERIENCE**

## **FAO HQ/AGAH/ TCE,** Rome, Italy — Disease Ecologist

Sept 2008 - present

EMPRES-i, Disease intelligence and forecasting, OneHealth, GIS in Animal Health and zoonosis control, AH Emergencies, GF-TADs

## **Institute of Zoology NAS,** Kiev, Ukraine — Research Scientist

Jan 2003 - Sept 2009

Field Wildlife Ecology Research, Wildlife Informatics, GIS in Ecological Studies, Wildlife Conservation.

## **Azov-Black Sea Ornithological Station,** Melitopol, — Research Assistant

Jan 1993 - Jan 2002

Ornithological research with focus on migratory waterbirds in Ukraine and Russian Arctic.

#### **EDUCATION**

## **Institute of Zoology NAS,** Kiev, Ukraine — *PhD*, *Zoology*

1996 - 1999

THESIS: Migrations of Curlew Sandpiper as an example of using the continental flyway by arctic waders. Defended in 2003.

## **MSPI**, Melitopol, Ukraine — MSci, Biology-Chemistry

1991 - 1996

DIPLOMA STUDY: Incubation behaviour of Kentish Plover *Charadrius* alexandrinus.

#### **GEOGRAPHIC SCOPE & WORK AREAS IN BRIEF**

Various international disease prevention and animal health capacity-building projects in E. Europe, Central Asia, West and Central Africa with FAO. Applied wildlife research in the Russian Arctic, Europe and Ukraine. Collaboration with OIE, UNEP/AEWA/CMS, EFSA/EC

#### **MAJOR SKILLS**

Disease Ecology & Epidemiology Analytics

Diseases at the wildlife/livestock interface

Advanced GIS & Animal Health Informatics

Wildlife Ecology

Data collection forms, analysis, visualization

Advanced PC user

Drone operation

#### **ON SOCIAL MEDIA**

- Research Gate (RG Score - 13.46)
- Google Scholar (i10-index 16)
- Facebook

#### **LANGUAGES**

English (level C, sertified), Russian (mother tongue), Ukrainian (native speaker)

#### **HOBBIES**

Photography, Canoeing, Cycling, History and Ethnography

### **DRIVING LICENCE**

B1, B, C1, C

#### Featured project and work areas under FAO consultancies (animal health)

- 2020 (home based). (1) ECA Regional: FAO/EBRD Cooperation Animal Health, Food Safety and Quality Programme in Moldova and Ukraine, (2) "Supporting the Global Health Security Agenda (GHSA) to address Zoonotic Disease and Animal Health in Africa" and "Global support to EPT-2 Programme". Wildlife and Disease Ecology Consultant with DPIC and Emergency Centre for Transboundary Animal Diseases (ECTAD);
- **2018–2019 (Rome).** FAO/OIE/EC funded Animal production and Health Manual "<u>African swine fever in</u> wild boar ecology and biosecurity". *Invited co-author*;
- 2016-2019 (Rome). Two USAID funded programmes (more <u>details</u>) Global Health Security Agenda and Emerging Pandemic Threats both focused on building animal health capacity to prevent, detect and respond to disease threats in over <u>30 countries</u> in Africa and Asia. *Epidemiological capacity building, support with development of national control plans for priority zoonotic diseases, workforce development as a consultant in disease ecology, GIS and data visualization;*
- **2016 (Rome).** FAO/EBRD Cooperation: African Swine Fever Risk Awareness Raising and Risk Mitigation in Ukraine (Phase I). Epidemiological analysis, risk mapping, training program;
- **2015.** FAO/IUCN/CMS Emergency mission and follow-up activities to investigate <u>catastrophic mortality</u> <u>events</u> in Saiga antelopes in Kazakhstan. Field and retrospective desktop investigations as a part of the research consortium led by Royal Veterinary College (London).
- **2012–2015 (Rome).** FAO TCP Projects on capacity building for early detection and response to ASF in Ukraine, Belarus and the Russian Federation. *Epidemiological analysis*, *risk mapping and development of national information systems to support disease control and eradication, animal health trainings/capacity building*;
- **2011–2012 (Rome).** EU–FMD Epidemiology, ecology and surveillance for FMD in wild boar in Bulgaria and Turkey. *Project Coordination and field research*;
- **2010–2011, 2014 (Rome).** FAO/<u>ASFORCE</u> and other multiple source funded activities for mapping and modelling domestic pig and wild boar populations in Eurasia and Europe. *Principal collaborator.*
- 2008–2010 (Rome). FAO Several projects focused on preparedness and control of Avian Influenza in Central Asia (Kazakhstan, Turkmenistan, Azerbaijan, Tajikistan, Uzbekistan), Eastern Europe (Ukraine, Kosovo, Montenegro, Moldova, Serbia and other countries of the region). Support with avian influenza surveillance, contingency planning, SOPs and multi sectoral capacity building.
- **2005–2007 (Kyiv).** FAO/USAID/IZAN Avian Influenza risk modelling and surveillance in wild birds. *Principal investigator and Project Coordinator.*

#### Project and work areas as a zoologist with the NAS and MoE of Ukraine

- **2020–2021 (home based)** MoE of Ukraine part–time visiting zoologist in the National Nature Park "Mezinski"
- **2003–2008 (Kyiv)** IZAN Development and implementation of the National Wildlife Cadastre of Ukraine. *Principal Investigator, development of database and GIS integration*;
- 1997-2000 (Taymyr Peninsula, Russia, Duch Govt funded expeditions). Set-up and implementation of a biological monitoring scheme at the William Barentz Biological Station in the Great Arctic Reserve. Research Ornithologist
- 1993-2001 (Melitopol) a variety of ornithological and wetland conservation projects and field research activities with the Azov-Black Sea Ornithological Station Research Assistant

#### Awards

2003 - a winner of a prize at the III contest of scientific projects "Intellectual potential of young scientists

#### Membership / collaboration

- **2014–2019.** OIE/FAO/Standing Group of Experts on African swine fever in Europe. *Field missions to Latvia, Poland, Ukraine, Belarus, Romania. Participation in meetings.*
- **2013–2017.** Invited expert of EFSA with ASF and FMD in wild boar. *Co-author of several scientific opinions on the subject.*
- **2010–2019.** Member of the OFFLU OIE/FAO Network of expertise on animal influenza. *Contributor to briefs and publications.*
- 2009–2012. Member of the Technical Committee of the Agreement on the Conservation of African–Eurasian Migratory Waterbirds (AEWA). Representing Eastern Europe

#### Software and visualization tools

- <u>Data collection and management, spreadsheets:</u> Advanced Excel, Google Sheets & Forms, KoboToolBox, Epicollect5, Microrract, Awesome Tables, FlowMap Blue, Tableau, Microsoft Power BI and other online data management/visualization applications
- <u>GIS and mapping:</u> ArcGIS, QGIS, ArcGIS Online, MapBox, Carto, Google Earth Pro, Google Earth Studio, GeoSheets, other vector/raster desktop and cloud based GIS applications / tools
- <u>Photography and video:</u> HitFilm Express, Premier Pro, RawTherapy, Image Composite Editor, InkScape, PhotoScape
- <u>Drone operation:</u> DJI Go, DroneDeploy

#### 7 featured/most cited publications

(total of 72, see others on GoogleScholar or ResearchGate)

Guberti, V., Khomenko, S., Masiulis, M. & Kerba S. 2019. African swine fever in wild boar ecology and biosecurity. FAO Animal Production and Health Manual No. 22. Rome, FAO, OIE and EC.

Khomenko S, Beltrán-Alcrudo D, Rozstalnyy A, Gogin A, Kolbasov D, et al. African swine fever in the Russian Federation: risk factors for Europe and beyond. EMPRESS watch Vol. 28 (2013).

Kock, R., Orenbayev, M., Robinson, S., Zuther, S., Singh, N., Beauvais, W., ... Milner-Gulland, E. (2018). Saigas on the brink: Multidisciplinary analysis of the factors influencing mass mortality events. Science Advances, 1–11.

Ottaviani D, de la Rocque S, Khomenko S, Gilbert M, Newman SH, Roche B, et al. (2010) The cold European winter of 2005–2006 assisted the spread and persistence of H5N1 influenza virus in wild birds. EcoHealth

Alexandrov, T., Stefanov, D., Kamenov, P., Miteva, A., Khomenko, S., Sumption, K., Meyer-Gerbaulet, H., & Depner, K. (2013). Surveillance of foot-and-mouth disease (FMD) in susceptible wildlife and domestic ungulates in Southeast of Bulgaria following a FMD case in wild boar. Veterinary Microbiology, 166(1), 84-90.

Pittiglio C, Khomenko S, Beltran-Alcrudo D (2018) Wild boar mapping using population-density statistics: From polygons to high resolution raster maps. PLoS ONE 13(5): e0193295.

Diadicheva E. & Khomenko S. 2006. Migration of Curlew Sandpiper Calidris ferruginea through the Azov–Black Sea region, Ukraine. International Wader Studies 19: 82–95.