Geosistemy perehodnykh zon = Geosystems of Transition Zones / Геосистемы переходных зон
2026, vol. 10, No. 2, p. 205–224
http://journal.imgg.ru/archive.htm; https://elibrary.ru/title_about.asp?id=64191
https://doi.org/10.30730/gtrz.2026.10.2.205-224 ; https://www.elibrary.ru/fkuysy

Seismicity of the south of the Russian Far East in 2025

[1] Safonov, Dmitry A., https://orcid.org/0000-0002-2201-2016 , d.safonov@imgg.ru

[2] Semenova, Elena P., https://orcid.org/0000-0002-7435-961X, semenova@seismo.sakhalin.ru

[1,2] Kostylev, Dmitry V., https://orcid.org/0000-0002-8150-9575, kostylev@seismo.sakhalin.ru

[1] *Institute of Marine Geology and Geophysics of the Far Eastern Branch, Russian Academy of Sciences, Yuzhno-Sakhalinsk, Russia*

[2] *Sakhalin Branch of the Federal Research Center "Geophysical Survey of the Russian Academy of Sciences", Yuzhno-Sakhalinsk, Russia*

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Abstract. This study continues a series of annual brief reviews on the seismic activity in the southern part of the Russian Far East, based on the data from the catalog of the "Yuzhno-Sakhalinsk" Regional Information Processing Center, part of the Sakhalin Branch of the Federal Research Center "Geophysical Service of the Russian Academy of Sciences" (SB FRC GS RAS). The main seismic parameters for the study area in 2025 are presented: maps of earthquake epicenters and their maximum macroseismic effects, a statistical estimate of the seismic activity level using the SESL'09 scale, Benioff graphs, and density maps of nominal elastic deformation. On July 29, 2025, a strong earthquake with a magnitude of 8.8 occurred at the junction of the Kuril-Okhotsk and Kamchatka regions. Foreshock and aftershock activity in the focal zone of this earthquake accounted for approximately half of all seismic events in the study area. Brief information on this earthquake is provided, based primarily on the data from the Geophysical Survey of the Russian Academy of Sciences. Brief information is also provided on other significant earthquakes in the southern Far East that are of interest for detailed study. The seismicity level of the Kuril-Okhotsk region in 2025 is estimated to be high; that of the Sakhalin region, average background; and that of the Amur region and Primorye, low background.

Keywords:
earthquakes, seismic activity, Amur region, Primorye, Sakhalin, Kuril-Okhotsk region

For citation: Safonov D.A., Semenova E.P., Kostylev D.V. Seismicity of the south of the Russian Far East in 2025. *Geosistemy perehodnykh zon = Geosystems of Transition Zones*, 2026, vol. 10, No. 2, p. 205–224. (In Russ.). https://doi.org/10.30730/gtrz.2026.10.2.205-224 ; https://www.elibrary.ru/fkuysy

Для цитирования: Сафонов Д.А., Семенова Е.П., Костылев Д.В. Сейсмичность юга Дальнего Востока России в 2025 году. *Геосистемы переходных зон*, 2026, т. 10, № 2, с. 205–224. https://doi.org/10.30730/gtrz.2026.10.2.205-224 ; https://www.elibrary.ru/fkuysy

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