

DAFTAR PUSTAKA

- Abate, Z. 2016. Review of the Reproductive Performances of Indigenous Sheep in Ethiopia. *Biol. Agric. Healthc.* 6:117–126. Available from: <https://core.ac.uk/download/pdf/234661995.pdf>
- Abdallah, J. M., and J. Abo Omar. 2017. Multivariate analysis of morphological characteristics of Awassi sheep in the West Bank, Palestine. *J. Anim. Plant Sci.* 27:1115–1125.
- Abdelkader, A. A., N. Ata, M. T. Benyoucef, A. Djaout, N. Azzi, O. Yilmaz, İ. Cemal, and S. B. S. Gaouar. 2018. New genetic identification and characterisation of 12 Algerian sheep breeds by microsatellite markers. *Ital. J. Anim. Sci.* 17:38–48. doi:10.1080/1828051X.2017.1335182.
- Abdullah, M. 2016. Qurban: wujud kedekatan seorang hamba dengan tuhan. *J. Pendidik. Agama Islam -Ta'lim.* 14:109–116.
- Abegaz, S., B. P. Hegde, and M. Taye. 2011. Growth and physical body characteristics of gumuz sheep under traditional management systems in Amhara Regional State, Ethiopia. *Livest. Res. Rural Dev.* 23.
- Agaviezor, B. O., M. A. Adefenwa, S. O. Peters, A. Yakubu, O. A. Adebambo, M. O. Ozoje, C. O. N. Ikeobi, B. M. Ilori, M. Wheto, O. O. Ajayi, S. A. Amusan, M. Okpeku, M. De Donato, and I. G. Imumorin. 2012. Genetic diversity analysis of the mitochondrial D-loop of Nigerian indigenous sheep. *Anim. Genet. Resour. génétiques Anim. génétiques Anim.* 50:13–20. doi:10.1017/S2078633612000070.
- Agriculture and Agri-Food Canada. 2010. Competitive Industry Report on the Indonesian Cattle and Goats Sectors: Opportunities for Canadian Animal Genetics. Available from: <https://ei-ado.aciar.gov.au/supplementary-reports/annotated-bibliography/competitive-industry-report-indonesian-cattle-and-goats>
- Ahmad, W., T. Ahmed, and B. Ahmad. 2019. Hedonic pricing of goat characteristics at the market level: The case of Pakistan. *Int. Food Agribus. Manag. Rev.* 22:483–497. doi:10.22434/IFAMR2018.0037.
- Aldosari, F., M. Saleh, A. Shunaifi, M. Amjad, M. Muddassir, and M. Ali. 2019. Farmers' perceptions regarding the use of Information and Communication Technology (ICT) in Khyber Pakhtunkhwa , Northern Pakistan. *J. Saudi Soc. Agric. Sci.* 18:211–217. doi:10.1016/j.jssas.2017.05.004. Available from: <https://doi.org/10.1016/j.jssas.2017.05.004>
- Alvarez, I., A. Traore, H. H. Tamboura, A. Kabore, L. J. Royo, I. Fernandez, G. Ouedraogo-Sanou, L. Sawadogo, and F. Goyache. 2009. Microsatellite

analysis characterizes Burkina Faso as a genetic contact zone between Sahelian and Djallonke sheep. *Anim. Biotechnol.* 20:47–57. doi:10.1080/10495390902786926.

Amareswari, P., M. Gnana Prakash, B. Ekambaram, M. Mahendar, and C. H. Krishna. 2018. Molecular genetic studies on Nellore and Deccani sheep using microsatellite markers. *Indian J. Anim. Res.* 52:805–810. doi:10.18805/ijar.B-3300. Available from: <http://arccjournals.com/journal/indian-journal-of-animal-research/B-3300>

Anggraini, S., Sulastri, and S. Suharyati. 2016. Status Reproduksi dan Estimasi Output Berbagai Bangsa Sapi Di Desa Sriwedari, Kecamatan Tegineneng, Kabupaten Pesawaran. *J. Ilm. Peternak. Terpadu.* 4:47–54.

Arranz, J. J., Y. Bayón, and F. San Primitivo. 2001. Differentiation among Spanish sheep breeds using microsatellites. *Genet. Sel. Evol.* 33:529–542. doi:10.1051/gse:2001131.

Asheim, L. J., L. O. Eik, and I. Dellal. 2014. Production Systems for the Muslim Goat's Meat Market. *Tanzania J. Agric. Sci.* 12:26–34.

Astuti, M. 1997. Estimasi jarak genetik antar populasi kambing Kacang, kambing Peranakan Etawah dan kambing lokal berdasar polimorfisme protein darah. *Bul. Peternak.* 21:1–9.

Atig, R. K., S. Hsouna, E. Beraud-Colomb, and E. S. Abdelhak. 2009. Mitochondrial DNA: properties and applications. *Arabs. Inst. Pasteur Tunis.* 86:1–4.

Australian Wool Innovation Limited. 2019. Visual sheep scores. Australian Wool Innovation Limited.

Azhimetov, N. N., Z. A. Parzhanov, B. A. Azhibekov, T. A. Mustiyar, and E. Baibekov. 2020. Selection method of karakul sheep of gray color by viability. *EurAsian J. Biosci.* 14:343–345.

Bandelt, H. J., P. Forster, and A. Röhl. 1999. Median-joining networks for inferring intraspecific phylogenies. *Mol. Biol. Evol.* 16:37–48. doi:10.1093/oxfordjournals.molbev.a026036.

Bimerow, T., A. Yitayew, M. Taye, and S. Mekuriaw. 2011. Morphological characteristics of Farta sheep in Amahara Region, Ethiopia. *Online J. Anim. Feed Res.* 1:299–305.

Biscarini, F., S. Marini, P. Stevanato, C. Broccanello, R. Bellazzi, and N. Nazzicari. 2015a. Developing a parsimonious predictor for binary traits in sugar beet (*Beta vulgaris*). *Mol. Breed.* 35. doi:10.1007/s11032-015-0197-5.

- Biscarini, F., E. Nicolazzi, S. Alessandra, P. Boettcher, and G. Gandini. 2015b. Challenges and opportunities in genetic improvement of local livestock breeds. *Front. Genet.* 5:1–16. doi:10.3389/fgene.2015.00033.
- Blakely, J., and D. H. Bade. 1998. *Ilmu Peternakan*. 4th ed. Gadjah Mada University Press, Yogyakarta.
- Boore, J. L. 1999. Animal mitochondrial genomes. *Nucleic Acids Res.* 27:1767–1780. doi:10.1093/nar/27.8.1767. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/10101183>
- Boughalmi, A., A. Araba, and M. Yessef. 2015. Dynamics of extensive sheep production systems in Morocco. *Livest. Res. Rural Dev.* 27.
- Brandford, G. E., and I. Inounu. 1996. Profilic breed in Indonesia. In: M. Fahmy, editor. *Profilic Sheep*. CAB International. p. 137–145.
- Bravi, C. M., J. P. Lirón, P. M. Mirol, M. V. Ripoli, P. Peral-García, and G. Giovambattista. 2004. A simple method for domestic animal identification in Argentina using PCR-RFLP analysis of cytochrome b gene. *Leg. Med.* 6:246–251. doi:10.1016/j.legalmed.2004.06.003.
- Bruford, M. W., D. G. Bradley, and G. Luikart. 2003. DNA markers reveal the complexity of livestock domestication. *Nat. Rev. Genet.* 4:900–910. doi:10.1038/nrg1203.
- Budiarto, B. R. 2015. Polymerase Chain Reaction (Pcr) : Perkembangan Dan Perannya Dalam Diagnostik Kesehatan. *Polym. Chain React. Perkemb. Dan Perannya Dalam Diagnostik Kesehat.* 6:29–38.
- Budisatria, I. G. S. 2006. *Dynamics of Small Ruminant Development in Central Java, Indonesia*. Ponsen Looijen BV, Wageningen, Wageningen.
- Budisatria, I. G. S., E. Baliarti, T. S. M. Widi, and A. Ibrahim. 2016. Dynamics Population of Aceh and Non Aceh Cattle in North Aceh Regency. In: *Simposium Nasional Penelitian dan Pengembangan Peternakan Tropik Tahun 2016*. Faculty of Animal Science, Universitas Gadjah Mada, Yogyakarta. p. 236–243. Available from: Semnaster.fapet.ugm.ac.id
- Budisatria, I. G. S., Panjono, D. Maharani, and A. Ibrahim. 2018. *Kambing Peranakan Etawah: Kepala Hitam atau Cokelat?* Gadjah Mada University Press, Yogyakarta.
- Budisatria, I. G. S., H. M. J. Udo, E. Baliarti, and T. W. Murti. 2002. The Effect of Religious Festivities on the Supply and Demand of Small Ruminants. In: *The 3rd ISTAP*, Faculty of Animal Science, Universitas Gadjah Mada. Yogyakarta.

- Budisatria, I. G. S., H. M. J. Udo, C. H. A. M. Eilers, E. Baliarti, and A. J. van der Zijpp. 2010. Preferences for sheep or goats in Indonesia. *Small Rum. Res.* 88:16–22. doi:10.1016/j.smallrumres.2009.11.002.
- Budisatria, I. G. S., H. M. J. Udo, C. H. A. M. Eilers, and A. J. Van Der Zijpp. 2007a. Dynamics of small ruminant production: A case study of Central Java, Indonesia. *Outlook Agric.* 36:145–152. doi:10.5367/000000007781159976.
- Budisatria, I. G. S., H. M. J. Udo, A. J. J. van der Zijpp, E. Baliarti, and T. W. Murti. 2008. Religious Festivities and Marketing of Small Ruminants in Central Java – Indonesia. *Asian J. Agric. Dev.* 5:57–74. doi:10.22004/ag.econ.198987.
- Budisatria, I. G. S., H. M. J. Udo, A. J. van der Zijpp, T. W. Murti, and E. Baliarti. 2007b. Air and water qualities around small ruminant houses in Central Java - Indonesia. *Small Rum. Res.* 67:55–63. doi:10.1016/j.smallrumres.2005.09.028.
- Bukhari, S. F. H., F. M. Woodside, R. Hassan, A. L. Shaikh, S. Hussain, and W. Mazhar. 2019. Is religiosity an important consideration in Muslim consumer behavior: Exploratory study in the context of western imported food in Pakistan. *J. Islam. Mark.* 10:1288–1307. doi:10.1108/JIMA-01-2018-0006.
- Bunch, T. D., C. Wu, Y.-P. P. Zhang, and S. Wang. 2006. Phylogenetic analysis of snow sheep (*Ovis nivicola*) and closely related taxa. *J. Hered.* 97:21–30. doi:10.1093/jhered/esi127. Available from: https://watermark.silverchair.com/esi127.pdf?token=AQECAHi208BE49Ooan9kkhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAAaYwggGiBgkqhkiG9w0BBwagggGTMIIBjwIBADCCAYgGCSqGSIb3DQEHATAeBgIghkgBZQMEAS4wEQQMjFN-2pQXF6Q5UmY7AgEQgIIBWbetWq8ThorCQBd86ddvge6L7S0-aUkxbMkUvU8vWrm8yztj
- Cholili, M. S. 2016. Problematika Seputar Ibadah Qurban. *Model. J. Progr. Stud. PGMI.* 3:217–227.
- Crcek, M., and K. Drobnic. 2011. Forensic Science International: Genetics Supplement Series Forensic identification of 12 mammals species based on size variation of mitochondrial cytochrome b gene using multiplex PCR assay. *Forensic Sci. Int. Genet. Suppl. Ser.* 3:218–219. doi:10.1016/j.fsigss.2011.08.109.
- Darmawan, H., and N. Supartini. 2012. Heritabilitas dan Nilai Pemuliaan domba Ekor Gemuk di Kabupaten Situdondo. *Buana Sains.* 12:51–62.
- Degen, A. A., and S. El-Meccawi. 2008. Livestock trader entrepreneurs among urban Bedouin in the Negev Desert. *Entrep. Innov.* 9:93–101.

Deng, J., X. L. Xie, D. F. Wang, C. Zhao, F. H. Lv, X. Li, J. Yang, J. L. Yu, M. Shen, L. Gao, J. Q. Yang, M. J. Liu, W. R. Li, Y. T. Wang, F. Wang, J. Q. Li, Ee. E. Hehua, Y. G. Liu, Z. Q. Shen, Y. L. Ren, G. J. Liu, Z. H. Chen, N. A. Gorkhali, H. E. Rushdi, H. Salehian-Dehkordi, A. Esmailizadeh, M. Nosrati, S. R. Paiva, A. R. Caetano, O. Štěpánek, I. Olsaker, C. Weimann, G. Erhardt, I. Curik, J. Kantanen, J. M. Mwacharo, O. Hanotte, M. W. Bruford, E. Ciani, K. Periasamy, M. Amills, J. A. Lenstra, J. L. Han, H. P. Zhang, L. Li, and M. H. Li. 2020. Paternal Origins and Migratory Episodes of Domestic Sheep. *Curr. Biol.* 30:4085-4095.e6. doi:10.1016/j.cub.2020.07.077.

Deniskova, T. E., A. V. Dotsev, M. I. Selionova, E. Kunz, I. Medugorac, H. Reyer, K. Wimmers, M. Barbato, A. A. Traspov, G. Brem, and N. A. Zinovieva. 2018. Population structure and genetic diversity of 25 Russian sheep breeds based on whole-genome genotyping. *Genet. Sel. Evol.* 50:1–16. doi:10.1186/s12711-018-0399-5. Available from: <https://doi.org/10.1186/s12711-018-0399-5>

Department of Agriculture Fisheries and Animal Husbandry. 2019. Hasil Rekapitulasi Pendataan Domba Batur. Department of Agriculture, Fisheries and Animal Husbandry of Banjarnegara District, Banjarnegara.

Devendra, C. 1986. Small Ruminant Production Systems in South and Southeast Asia.

Devendra, C., and G. B. McLeroy. 1982. Goat and Sheep Production in the Tropics. (W. Payne, editor.). Longman, New York.

Directorate General of Animal Husbandry and Animal Health. 2016. Livestock and Animal Health Statistic 2016. Directorate General of Animal Husbandry and Animal Health, Ministry of Agriculture of the Republic of Indonesia, Jakarta.

Directorate General of Livestock Services. 2003. National Report on Animal Genetic Resources Indonesia, A Strategic Policy Document. Ministry of Agriculture of the Republic of Indonesia, Jakarta.

Direktorat Perbibitan Ternak. 2015a. Pedoman Pelaksanaan Pewilayahan Sumber Bibit Tahun 2015. Direktorat Jenderal Peternakan dan Kesehatan Hewan. Kementerian Pertanian Republik Indonesia, Jakarta.

Direktorat Perbibitan Ternak. 2015b. Petunjuk Teknis Tata Cara Penetapan dan Pengelolaan Wilayah Sumber Bibit. Ministry of Agriculture of the Republic of Indonesia, Jakarta.

Draganescu, C. 2013. Pastorship and the Romanians' ethnogenesis - Valachian corkscrew horns sheep breed ("Ratsca") - an interesting biological and historical document. *Sci. Pap. Ser. Manag. Econ. Eng. Agric. Rural Dev.* 13:109–116.

- Duchev, Z., and E. Groeneveld. 2006. Improving the monitoring of animal genetic resources on National and International level. *Arch. Tierz., Dummerstorf.* 49:532–544.
- Dudu, A., E. Ghita, M. Costache, and S. E. Georgescu. 2016. Origin and genetic diversity of Romanian Racka sheep using mitochondrial markers. *Small Rum. Res.* 144:276–282. doi:10.1016/J.SMALLRUMRES.2016.10.016. Available from: <http://www.sciencedirect.com/science/article/pii/S0921448816302838>
- Dunisławska, A., J. Łachmańska, A. Sławińska, and M. Siwek. 2017. Next generation sequencing in animal science - a review. *Anim. Sci. Pap. Reports.* 35:205–224.
- Einstiana, A. 2006. Studi keragaman fenotipik dan pendugaan jarak genetik antar domba lokal di Indonesia. Intitut Pertanian Bogor. Available from: <http://repository.ipb.ac.id/bitstream/handle/123456789/49193/D06aei.pdf?sequence=1&isAllowed=y>
- El-Hentati, H., M. Ben Hamouda, A. Kenani, and A. Chriki. 2014. A review on the species *Ovis aries* (Linnaeus, 1758). *Life Sci. J.* 11:158–162.
- Eyduran, E., I. Keskin, Y. E. Erturk, B. Dag, A. Tatliyer, C. Tirink, R. Aksahan, and M. M. Tariq. 2016. Prediction of fleece weight from wool characteristics of sheep using regression tree method (Chaid Algorithm). *Pak. J. Zool.* 48:957–960.
- Falconer, D. 1981. *Introduction to Quantitative Genetics*. 2nd ed. Longman, New York.
- Fan, H., F. Zhao, C. Zhu, F. Li, J. Liu, L. Zhang, C. Wei, and L. Du. 2016. Complete mitochondrial genome sequences of Chinese indigenous sheep with different tail types and an analysis of phylogenetic evolution in domestic sheep. *Asian-Australasian J. Anim. Sci.* 29:631–639. doi:10.5713/ajas.15.0473.
- FAO. 2000. World watch list for domestic animal diversity. Available from: <http://www.fao.org/3/x8750e/x8750e.pdf%0Ahttp://www.ncbi.nlm.nih.gov/pubmed/19383991>
- FAO. 2012. Phenotypic characterization of animal genetic resources. Food and Agriculture Organization of the United Nations, Rome.
- Felsenstein, J. 1985. Confidence Limits on Phylogenies: An Approach Using the Bootstrap. *Evolution* (N. Y). 39:783–791. doi:10.2307/2408678. Available from: <http://www.jstor.org/stable/2408678?origin=crossref>
- Figueiredo, G. C., M. P. G. de Rezende, M. P. de Figueiredo, R. Bozzi, A. A. Oliveira Souza, P. L. Souza Carneiro, and C. H. Mendes Malhado. 2019. Morphofunctional characteristics of Dorper sheep crossed with Brazilian

native breeds. Small Rum. Res. 170:143–148.
doi:10.1016/j.smallrumres.2018.11.024. Available from:
<https://doi.org/10.1016/j.smallrumres.2018.11.024>

Floren, J., T. Rasul, and A. Gani. 2019. Islamic marketing and consumer behaviour: a systematic literature review. *J. Islam. Mark.* 1–22. doi:10.1108/JIMA-05-2019-0100.

Food and Agriculture Organisation (FAO). 2004. Corporate Document Repository. Profilic sheep in Java.

Di Franco, G. 2016. Multiple correspondence analysis: one only or several techniques? *Qual. Quant.* 50:1299–1315. doi:10.1007/s11135-015-0206-0. Available from: <http://dx.doi.org/10.1007/s11135-015-0206-0>

Ganbold, O., S. Lee, W. K. Paek, M. Munkhbayar, D. Seo, P. Manjula, T. Khujuu, E. Purevee, and J. H. Lee. 2020. Mitochondrial DNA variation and phylogeography of native Mongolian goats. *Asian-Australasian J. Anim. Sci.* 33:902–912.

Ganbold, O., S. Lee, D. Seo, W. K. Paek, and P. Manjula. 2019. Genetic diversity and the origin of Mongolian native sheep. *Livest. Sci.* 220:17–25. doi:10.1016/j.livsci.2018.12.007. Available from: <https://doi.org/10.1016/j.livsci.2018.12.007>

Gayatri, S., and M. Handayani. 2007. The function of Batur sheep to increasing family income in Batur village Banjarnegara Regency. In: *Seminar Nasional Teknologi Peternakan dan Veteriner 2007*. p. 532–538.

Ge, W., M. E. Davis, H. C. Hines, and K. M. Irvin. 2002. Identification of genetic marker for growth and carcass traits in beef cattle. *Research and Review: Beef and Sheep. Bull. Ext.* 170–199.

Ghassemi Nejad, J., B. W. Kim, B. H. Lee, and K. Il Sung. 2017. Coat and hair color: hair cortisol and serotonin levels in lactating Holstein cows under heat stress conditions. *Anim. Sci. J.* 88:190–194. doi:10.1111/asj.12662.

Gizaw, S., H. Komen, O. Hanotte, and J. A. M. Van Arendonk. 2008. Indigenous sheep resources of Ethiopia: types, production systems and farmers preferences.

Gorkhali, N. A. 2015. Genetic diversity, differentiation and relationship of Nepalese sheep genetic resources: using DNA markers. *Chinese Academy of Agricultural Sciences.*

Gorkhali, N. A., J. L. Han, and Y. H. Ma. 2015. Mitochondrial DNA variation in indigenous sheep (*Ovis aries*) breeds of Nepal. *Trop. Agric. Res.* 26:632–641. doi:10.4038/tar.v26i4.8125. Available from:

<https://tar.sljol.info/article/10.4038/tar.v26i4.8125/>

- Gorkhali, N. A., L. Jiang, B. S. Shrestha, X. H. He, Q. Junzhao, J. L. Han, and Y. H. Ma. 2016. High occurrence of mitochondrial heteroplasmy in nepalese indigenous sheep (*Ovis aries*) compared to Chinese sheep. *Mitochondrial DNA*. 27:2645–2647. doi:10.3109/19401736.2015.1041134.
- Griffith, A. P., and B. Bowling. 2016. Seasonal Prices for Small Ruminants in Tennessee. *Univ. Tennessee Inst. Agric.*
- Guo, J., L. X. L.-X. Du, Y.-H. Ma, W.-J. Guan, H.-B. Li, Q.-J. Zhao, X. Li, A.-Q. Rao, and S.-Q. Rao. 2005. A novel maternal lineage revealed in sheep (*Ovis aries*). *Anim. Genet.* 36:331–336. doi:10.1111/j.1365-2052.2005.01310.x. Available from: <http://doi.wiley.com/10.1111/j.1365-2052.2005.01310.x>
- Gutiérrez-Gil, B., C. Esteban-Blanco, P. Wiener, P. K. Chitneedi, A. Suarez-Vega, and J. J. Arranz. 2017. High-resolution analysis of selection sweeps identified between fine-wool Merino and coarse-wool Churra sheep breeds. *Genet. Sel. Evol.* 49:1–24. doi:10.1186/s12711-017-0354-x.
- Gutiérrez-Gil, B., M. Uzun, J. J. Arranz, F. San Primitivo, S. Yildiz, M. Cenesiz, and Y. Bayón. 2006. Genetic diversity in Turkish sheep. *Acta Agric. Scand. A Anim. Sci.* 56:1–7. doi:10.1080/09064700600641681.
- Handoyo, D., and A. Rudiretna. 2001. Prinsip umum dan pelaksanaan Polymerase Chain Reaction (PCR). *Unitas.* 9:17–29. doi:10.3390/s100706535.
- Hanotte, O., and H. Jianlin. 2005. Genetic characterization of livestock populations and its use in conservation decision-making. *Role Biotechnol.* 137–142. Available from: <http://books.google.com/books?hl=en&lr=&id=tPVz5ZDqUtAC&oi=fnd&pg=PA97&dq=GENETIC+CHARACTERISATION+OF+POPULATIONS+AND+ITS+USE+IN+CONSERVATION+DECISION+MAKING+IN+FISH&ots=OQL4asgaGN&sig=oZNnMewCUks9buo69wJN7ifZ6zw>
- Harahap, A. S. 2008. Pengaruh umur terhadap performa reproduksi induk domba lokal yang digembalakan di UP3 Jonggol. *Insntitut Pertanian Bogor.*
- Haryanti, Y., E. Kurnianto, and C. M. S. Lestari. 2015. Estimation of body weight using body measurements on Wonosobo sheep. *J. Sain Peternak. Indones.* 10:1–6. doi:10.31186/jspi.id.10.1.1-6.
- Haryono, A. Anggraeni, B. Tiesnamurti, and I. Inounu. 2014. SNRA Sumberdaya Genetik Hewan untuk Pangan dan Pertanian. Ministry of Agriculture of the Republic of Indonesia, Jakarta.
- Hastono. 2009. Pelestarian domba Garut melalui budaya domba tangkas (domba adu). *Sinar Tani.*

- He, X., Z. Zhou, Y. Pu, X. Chen, Y. Ma, and L. Jiang. 2016. Mapping the four-horned locus and testing the polled locus in three Chinese sheep breeds. *Anim. Genet.* 47:623–627. doi:10.1111/age.12464.
- Heaton, M. P., T. P. L. Smith, B. A. Freking, A. M. Workman, G. L. Bennett, J. K. Carnahan, and T. S. Kalbfleisch. 2017. Using sheep genomes from diverse U.S. breeds to identify missense variants in genes affecting fecundity. *F1000Research.* 6:1303. doi:10.12688/f1000research.12216.1. Available from: <https://f1000research.com/articles/6-1303/v1>
- Heriyadi, D. 2005. Identifikasi Sifat-sifat Kualitatif Domba Garut Jantan Tipe Tangkas. *J. Ilmu Ternak.* 5:47–52.
- Herrera, M., E. Rodero, M. J. Gutierrez, F. Pena, and J. M. Rodero. 1996. Application of multifactorial discriminant analysis in the morphostructural differentiation of Andalusian caprine breeds. *Small Rum. Res.* 22:39–47.
- Hidayat, T., and A. Pancoro. 2006. *Sistematika dan Filogenetika Molekuler. Kursus Singkat Aplikasi Perangkat Lunak PAUP dan Mr Bayes untuk Penelitian Filogenetik Molekuler SITH-ITB, Bandung.*
- Hidayatuloh, R., W. Darmawan, and S. Dwiatmini. 2020. Seni Laga Ketangkasan Domba Garut Dalam Perspektif Struktural Fungsional Di Desa Cikandang Kecamatan Cikajang Kabupaten Garut. *J. Budaya Etn.* 3:115–150. Available from: <https://jurnal.isbi.ac.id/index.php/etnika/article/view/1120>
- Hiendleder, S., B. Kaupe, R. Wassmuth, and A. Janke. 2002. Molecular analysis of wild and domestic sheep questions current nomenclature and provides evidence for domestication from two different subspecies. *Proc. R. Soc. B Biol. Sci.* 269:893–904. doi:10.1098/rspb.2002.1975. Available from: <http://rspb.royalsocietypublishing.org/cgi/doi/10.1098/rspb.2002.1975>
- Hiendleder, Stefan, H. Lewalski, R. Wassmuth, and A. Janke. 1998. The complete mitochondrial DNA sequence of the domestic sheep (*Ovis aries*) and comparison with the other major ovine haplotype. *J. Mol. Evol.* 47:441–448. doi:10.1007/PL00006401. Available from: <http://link.springer.com/10.1007/PL00006401>
- Hiendleder, S., K. Mainz, Y. Plante, and H. Lewalski. 1998. Analysis of mitochondrial DNA indicates that domestic sheep are derived from two different ancestral maternal sources: No evidence for contributions from urial and argali sheep. *J. Hered.* 89:113–120. doi:10.1093/jhered/89.2.113.
- Hill, W. G., and T. F. C. Mackay. 2004. Anecdotal , Historical and Critical Commentaries on Genetics. *Genetics.* 1536:1529–1536.
- Hu, X., and L. Gao. 2016. The complete mitochondrial genome of domestic sheep,

Ovis aries. Mitochondrial DNA. 27:1425–1427.
doi:10.3109/19401736.2014.953076. Available from:
<http://www.tandfonline.com/doi/full/10.3109/19401736.2014.953076>

Hussain, T., M. E. Babar, A. Sciences, and A. Wajid. 2016. Extra nuclear DNA control region and Cytochrome b gene based phylogeny of Kail Sheep breed of Azad Jammu and Kashmir : Implications towards conservation. *J. Anim. Plant Sci.* 26:1890–1893.

Hussain, T., R. Pichler, M. E. Babar, W. A. Khan, Z. Ullah, S. Shehzad, K. Periasamy, M. Ellahi Babar, W. A. Khan, Z. Ullah, S. Shehzad, and K. Periasamy. 2017. Mitochondrial DNA D-Loop diversity and evolutionary relationship of wild Punjab Urrial sheep (*Ovis vignei punjabiensis*) with closely related taxa. *Small Rum. Res.* 148:22–32. doi:10.1016/j.smallrumres.2016.12.027.

Ibrahim, A. 2016. Produktivitas Pra Sapih Kambing Peranakan Etawah Ditinjau dari Perbedaan Warna Rambut Induk. Universitas Gadjah Mada. Available from: Fapet.ugm.ac.id

Indrijani, H., A. H. Sukmasari, and E. Handiwirawan. 2016. Keragaman pola warna tubuh, tipe telinga dan tanduk domba kurban di Bogor. In: *Lokakarya Nasional Pengelolaan dan Perlindungan Sumber Daya Genetik di Indonesia: Manfaat Ekonomi untuk Mewujudkan Ketahanan Nasional.* p. 236–244.

Jabbar, M. A. 1998. Buyer preferences for sheep and goats in southern Nigeria: A hedonic price analysis. *Agric. Econ.* 18:21–30. doi:10.1016/S0169-5150(97)00038-8.

Jakaria, J., M. S. A. Zein, S. Sulandari, S. Subandriyo, and M. Muladno. 2012. The use of microsatellite markers to study genetic diversity in Indonesia sheep. *J. Indones. Trop. Anim. Agric.* 37:1–9. Available from: <http://ejournal.undip.ac.id/index.php/jitaa/article/view/7467/6120>

Jones, C. C. 2002. Henna's Significance in Amazigh Id, Circumcision and "Night of the Henna" Celebration. *Encycl. Henna.*

Ju, Y., Huamiao Liu, J. He, L. Wang, J. Xu, Huitao Liu, and Y. Dong. 2020. Genetic diversity of Aoluguya Reindeer based on D-loop region of mtDNA and its conservation implications. *Gene.* 733:144271. doi:10.1016/j.gene.2019.144271. Available from: <https://doi.org/10.1016/j.gene.2019.144271>

Juarini, E., Sumanto, B. Wibowo, and Suratman. 2009. Sheep Distribution Based on Breed and Agroecosystem in Cianjur Regency. In: *Seminar Nasional Teknologi Peternakan dan Veteriner 2009.* p. 546–554.

- Karnuah, A. B., G. Dunga, A. Wennah, W. T. Wiles, P. A. Plaza, B. County, A. Genetic, R. Branch, and H. Division. 2018. Characterization of local sheep production system and morphology in Liberia. *African J. Rural Dev.* 3:943–954. Available from: <https://www.afjrd.org/jos/index.php/afjrd/article/view/1721>
- Karo, S. K. 2004. Prospek pengembangan produksi peternakan kambing dan domba serta kajian sosial ekonomi. In: *Lokakarya Nasional Domba dan Kambing: Strategi Peningkatan Produksi dan Mutu Bibit Domba dan Kambing.* p. 33–38.
- Karyadi, D. 2008. *Strategi Pengembangan Peternakan Domba Rakyat (Kasus Desa Cigudeg, Kecamatan Cigudeg, Kabupaten Bogor).* Institut Pertanian Bogor.
- Kdidi, S., M. H. Yahyaoui, B. García-manrique, P. Sarto, M. B. E. N. Sassi, T. Khorchani, and J. H. Calvo. 2015. Y chromosome haplotype characterization of Tunisian sheep breeds. 333–337. doi:10.3906/vet-1405-95.
- Khan, A. Q., F. Aldosari, and S. M. Hussain. 2018. Fish consumption behavior and fish farming attitude in Kingdom of Saudi Arabia (KSA). *J. Saudi Soc. Agric. Sci.* 17:195–199. doi:10.1016/j.jssas.2016.04.003. Available from: <https://doi.org/10.1016/j.jssas.2016.04.003>
- Kim, Y. S., K. Tseveen, B. Batsukh, J. Seong, and H. S. Kong. 2020. Origin-related study of genetic diversity and heteroplasmy of Mongolian sheep (*Ovis aries*) using mitochondrial DNA. *J. Anim. Reprod. Biotechnol.* 35:198–206. doi:10.12750/JARB.35.2.198. Available from: <http://www.e-jarb.org/journal/view.html?doi=10.12750/JARB.35.2.198>
- Kimura, M. 1980. A simple method for estimating evolutionary rates of base substitutions through comparative studies of nucleotide sequences. *J. Mol. Evol.* 16:111–120. doi:10.1007/BF01731581. Available from: <http://link.springer.com/10.1007/BF01731581>
- Kirikci, K., A. Noce, M. Akif, L. Mercan, M. Amills, M. A. Cam, L. Mercan, and M. Amills. 2018. The analysis of mitochondrial data indicates the existence of population substructure in Karayaka sheep. *Small Rum. Res.* 162:25–29. doi:10.1016/j.smallrumres.2018.02.007. Available from: <https://doi.org/10.1016/j.smallrumres.2018.02.007>
- Komarlah, D. J. Setyono, and Aslimah. 2015. The Quantitative and Qualitative Characteristic of Sheep and Goats Qurban in the Mitra Tani Farm. *Bul. Peternak.* 39:84–91.
- Köressaar, T., M. Lepamets, L. Kaplinski, K. Raime, R. Andreson, and M. Remm. 2018. Primer3-masker: Integrating masking of template sequence with primer design software. *Bioinformatics.* 34:1937–1938.

doi:10.1093/bioinformatics/bty036.

Koseniuk, A., and E. Słota. 2016. Mitochondrial control region diversity in Polish sheep breeds. *Arch. Anim. Breed.* 59:227–233. doi:10.5194/aab-59-227-2016.

Kumar, S., K. Tamura, I. B. Jakobsen, and M. Nei. 2001. MEGA2: molecular evolutionary genetics analysis software. *Bioinformatics.* 17:1244–1245. doi:10.1093/bioinformatics/17.12.1244. Available from: <https://academic.oup.com/bioinformatics/article-lookup/doi/10.1093/bioinformatics/17.12.1244>

Kusmana, C. 2015. Keanekaragaman hayati (biodiversitas) sebagai elemen kunci ekosistem kota hijau. *Pros. Semin. Nas. Masy. Biodiversitas Indones.* 1:1747–1755. doi:10.13057/psnmbi/m010801. Available from: <http://biodiversitas.mipa.uns.ac.id/M/M0108/M010801.pdf>

Labetubun, J., M. J. Matatula, and J. Wattimena. 2011. Sifat-Sifat Kuantitatif Dan Kualitatif Domba Kisar Betina Qualitative and Quantitative Characteristic of Kisar Ewe. 1:38–41.

Leblebicioglu, H., M. Sunbul, Z. A. Memish, J. A. Al-tawfiq, H. Bodur, A. Ozkul, A. Gucukoglu, S. Chinikar, and Z. Hasan. 2015. Consensus report: Preventive measures for Crimean-Congo Hemorrhagic Fever during Eid-al-Adha festival. *Int. J. Infect. Dis.* 38:9–15. doi:10.1016/j.ijid.2015.06.029. Available from: <http://dx.doi.org/10.1016/j.ijid.2015.06.029>

Lestari, D. A., E. Purbowati, S. Sutopo, and E. Kurnianto. 2018. Phylogenetical Relationships between Kejobong Goat and Other Goats Based on Mt-DNA D-loop Sequence Analysis. *Trop. Anim. Sci. J.* 41:85–93. doi:10.5398/tasj.2018.41.2.85.

Liu, J. B., X. Z. Ding, T. T. Guo, Y. J. Yue, Y. F. Zeng, X. Guo, M. Chu, J. L. Han, X. P. Sun, C. E. Niu, B. H. Yang, J. Guo, and C. Yuan. 2016. The complete mitochondrial genome sequence of the wild Huoba Tibetan sheep of the Qinghai-Tibetan Plateau in China. *Mitochondrial DNA Part A.* 27:4689–4690. doi:10.3109/19401736.2015.1106504.

Liu, J., X. Ding, Y. Zeng, Y. Yue, X. Guo, T. Guo, M. Chu, F. Wang, J. Han, R. Feng, X. Sun, C. Niu, B. Yang, J. Guo, and C. Yuan. 2016. Genetic Diversity and Phylogenetic Evolution of Tibetan Sheep Based on mtDNA D-Loop Sequences. *PLoS One.* 11:e0159308. doi:10.1371/journal.pone.0159308.

Luginbuhl, J. 2014. Consider Breeding Your Does to Target Ethnic Holidays Where Goat Meat Is Part Of The Traditional Holiday Feast. *Coll. Agric. Life Sci. NC State Univ.*

- Mahmudi, M. I. A., and H. S. Rini. 2015. Pergeseran Makna Ibadah Kurban Sebagai Konstruksi Identitas Sosial Masyarakat. *Solidar. J. Educ. Soc. Cult.* 4:82–89.
- Malewa, A. 2009. Estimation of Donggala Sheep Body Weight Based on Their Chest Diameter and Body Length. 16:91–97.
- Malissiova, E., A. Tzora, A. Katsioulis, M. Hatzinikou, A. Tsakalof, I. S. Arvanitoyannis, A. Govaris, and C. Hadjichristodoulou. 2015. Relationship between production conditions and milk gross composition in ewe's and goat's organic and conventional farms in central Greece. *Dairy Sci. Technol.* 95:437–450. doi:10.1007/s13594-015-0224-7.
- Manik, S. B., S. I. Santoso, and W. Sumekar. 2015. Rentability of Livestock Bussiness of Batur Sheep at Banjarnegara Regency. *J. Ilmu dan Teknol. Peternak.* 4:45–49. Available from: journal.unhas.ac.id/index.php/peternakan/article/view/809
- Manirakiza, J., G. Hatungumukama, B. Besbes, and J. Dettleux. 2020. Characteristics of smallholders' goat production systems and effect of Boer crossbreeding on body measurements of goats in Burundi. *Pastoralism.* 10. doi:10.1186/s13570-019-0157-5.
- Marković, B., P. Dovč, M. Marković, D. Radonjić, M. Adakalić, and M. Simčič. 2019. Differentiation of some Pramenka sheep breeds based on morphometric characteristics. *Arch. Anim. Breed.* 62:393–402. doi:10.5194/aab-62-393-2019.
- Mason, I. I. 1980. *FAO Corporate Document Repository*. FAO and UNEP.
- Mavule, B. S., F. M. Sarti, E. Lasagna, and N. W. Kunene. 2016. Morphological differentiation amongst Zulu sheep populations in KwaZulu-Natal, South Africa, as revealed by multivariate analysis. *Small Rum. Res.* 140:50–56. doi:10.1016/j.smallrumres.2016.06.001. Available from: <http://dx.doi.org/10.1016/j.smallrumres.2016.06.001>
- Meadows, J. R. S., O. Hanotte, C. Drögemüller, J. Calvo, R. Godfrey, D. Coltman, J. F. Maddox, N. Marzanov, J. Kantanen, and J. W. Kijas. 2006. Globally dispersed Y chromosomal haplotypes in wild and domestic sheep. *Anim. Genet.* 37:444–453. doi:10.1111/j.1365-2052.2006.01496.x.
- Meadows, J. R. S., R. J. Hawken, and J. W. Kijas. 2004. Nucleotide diversity on the ovine Y chromosome. *Anim. Genet.* 35:379–385. doi:10.1111/j.1365-2052.2004.01180.x.
- Meadows, J. R. S., and J. W. Kijas. 2009. Re-sequencing regions of the ovine Y chromosome in domestic and wild sheep reveals novel paternal haplotypes. *Anim. Genet.* 40:119–123. doi:10.1111/j.1365-2052.2008.01799.x.

Available from: <http://doi.wiley.com/10.1111/j.1365-2052.2008.01799.x>

- Meadows, J. R. S., K. Li, J. Kantanen, M. Tapio, W. Sipos, V. Pardeshi, V. Gupta, J. H. Calvo, V. Whan, B. Norris, and J. W. Kijas. 2005. Mitochondrial Sequence Reveals High Levels of Gene Flow Between Breeds of Domestic Sheep from Asia and Europe. *J. Hered.* 96:494–501. doi:10.1093/jhered/esi100. Available from: https://watermark.silverchair.com/esi100.pdf?token=AQECAHi208BE49Ooan9kKhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAAacwggGjBgkqhkiG9w0B BwagggGUMIIBkAIBADCCAykGCSqGSIb3DQEHATAeBglghkgBZQM EAS4wEQQMzfhydOJWEaSjkKa5AgEQgiIBWmVzRTDGC5BcA7IOHp3 s0JqDuV15rirEh4EdXLnKTRjdPIIn
- Meadows, J. R. S. S., and J. W. Kijas. 2009. Re-sequencing regions of the ovine Y chromosome in domestic and wild sheep reveals novel paternal haplotypes. *Anim. Genet.* 40:119–123. doi:10.1111/j.1365-2052.2008.01799.x. Available from: <http://doi.wiley.com/10.1111/j.1365-2052.2008.01799.x>
- Mengistu, T. G. 2008. Characterization of Menz and Afar indigenous sheep breeds of smallholders and pastoralists for designing community-based breeding strategies in Ethiopia. Haramaya University.
- Menteri Pertanian. 2006. Peraturan Menteri Pertanian Nomor: 35/Permentan/OT.140/8/2006 Tentang Pedoman Pelestarian dan Pemanfaatan Sumberdaya Genetik Ternak. Indonesia.
- Mereu, P., M. Pirastru, M. Barbato, V. Satta, E. Hadjisterkotis, L. Manca, S. Naitana, and G. G. Leoni. 2019. Identification of an ancestral haplotype in the mitochondrial phylogeny of the ovine haplogroup B. *PeerJ.* 7:e7895. doi:10.7717/peerj.7895.
- Mila, S., T. Ruzica, P. B. B. Z. D. B, and D. V. 2013. Determining the value of Vlashko-Vitoroga Zackel sheep for the conservation process. *Acta Vet.* 63:621–629. doi:10.2298/AVB1306621S.
- Ministry of Agriculture. 2011a. Peraturan Menteri Pertanian Nomor 48/Permentan/OT.140/9/2011 Tentang Pewilayahan Sumber Bibit. Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.
- Ministry of Agriculture. 2011b. Keputusan Menteri Pertanian Nomor 2916/Kpts/OT.140/6/2011 Tentang Penetapan Rumpun Domba Batur. Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.
- Ministry of Agriculture. 2011c. Keputusan Menteri Pertanian Nomor 2914/Kpts/OT.140/6/2011 Tentang Penetapan Rumpun Domba Garut. Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.

- Ministry of Agriculture. 2011d. Keputusan Menteri Pertanian Nomor 2915/Kpts/OT.140/6/2011 Tentang Penetapan Rumpun Domba Wonosobo. Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.
- Ministry of Agriculture. 2012. Keputusan Menteri Pertanian Nomor 2389/Kpts/LB/430/8/2012 Tentang Penetapan Rumpun Domba Sapudi. 1–5.
- Ministry of Agriculture. 2017. Keputusan Menteri Pertanian Republik Indonesia Nomor 300/Kpts/SR.120/5/2017 Tentang Penetapan Rumpun Domba Priangan. Ministry of Agriculture of the Republic of Indonesia, Jakarta, Indonesia.
- Mohapatra, A., and A. K. Shinde. 2018. Fat-Tailed sheep-An important sheep genetic resource for meat production in tropical countries: An overview. *Indian J. Small Ruminants*. 24:1. doi:10.5958/0973-9718.2018.00020.X. Available from: <http://www.indianjournals.com/ijor.aspx?target=ijor:ijsr&volume=24&issue=1&article=001>
- Moody, G. J., and J. D. R. Thomas. 1975. *Practical Electrophoresis*. Merrow, Minnesota.
- Mtimet, N., D. Baker, J. Audho, E. Oyieng, and J. M. K. Ojango. 2014. Assessing sheep traders' preferences in Kenya: a best-worst experiment from Kajiado Country. *UMK Procedia*. 1:63–73. doi:<https://doi.org/10.1016/j.umkpro.2014.07.009>. Available from: <https://www.sciencedirect.com/science/article/pii/S2214011514000101>
- Mukherjee, A. 1995. *Participatory Rural Appraisal: Methods and Applications in Rural Planning*. Vikas Publishing House PVT Ltd., New Delhi.
- Mulyaningsih, N. 1990. Domba Garut sebagai sumber plasma nutfah ternak. *Plasma Nutfah Hewan Indonesia*. Komisi Pelestari Plasma Nutfah Indonesia.
- Mundy, N. I., and A. J. Helbig. 2004. Origin and evolution of tandem repeats in the mitochondrial DNA control region of shrikes (*Lanius* spp.). *J. Mol. Evol.* 59:250–257. doi:10.1007/s00239-004-2619-6.
- Munier, F. 2013. *Characteristic of Palu sheep family in Palu Valley Region Central Sulawesi*. Balai Pengkajian Teknologi Pertanian Sulawesi Tengah.
- Naidu, A., R. R. Fitak, A. Munguia-Vega, and M. Culver. 2012. Novel primers for complete mitochondrial cytochrome b gene sequencing in mammals. *Mol. Ecol. Resour.* 12:191–196. doi:10.1111/j.1755-0998.2011.03078.x. Available from: <http://doi.wiley.com/10.1111/j.1755-0998.2011.03078.x>
- NCBI. 2018. Polymerase Chain Reaction (PCR). *Natl. Cent. Biotechnol. Inf.* Available from: <https://www.ncbi.nlm.nih.gov/probe/docs/techpcr/>

- Nei, M. 1987. *Molecular Evolutionary Genetics*. Columbia University Press, New York.
- Nei, M., and S. Kumar. 2000. *Molecular Evaluation and Phylogenetics*. Oxford University Press Inc, New York.
- Niemi, M., A. Bläuer, T. Iso-Touru, V. Nyström, J. Harjula, J. P. Taavitsainen, J. Storå, K. Lidén, and J. Kantanen. 2013. Mitochondrial DNA and Y-chromosomal diversity in ancient populations of domestic sheep (*Ovis aries*) in Finland: comparison with contemporary sheep breeds. *Genet. Sel. Evol.* 45:2. doi:10.1186/1297-9686-45-2.
- Nigussie, H., J. M. Mwacharo, S. Osama, M. Agaba, Y. Mekasha, K. Kebede, S. Abegaz, and S. K. Pal. 2019. Genetic diversity and matrilineal genetic origin of fat-rumped sheep in Ethiopia. *Trop. Anim. Health Prod.* 51:1393–1404. doi:10.1007/s11250-019-01827-z.
- Noviani, F., and S. E. Kurnianto. 2013. Hubungan Genetik antara Domba Wonosobo (Dombos), Domba Ekor Tipis (DET) dan Domba Batur (Dombat) Melalui Analisis Polimorfisme Protein Darah. 11:1–9.
- Noviyanti. 2017. Implementing Social Marketing Strategies to Improve Food-Safety Awareness During Eid-Al Adha Festival in Indonesia. *Proc. Indones. Focus.* 19–23.
- Nuriswantoni. 2013. Ukuran dan bentuk tubuh pada domba ekor tipis domba Batur domba Wonosobo dan domba Garut. Institut Pertanian Bogor.
- Nurmi, A. 2017. Karakteristik Sifat Kualitatif Domba Di Ex Upt Pir Nak Barumun Kecamatan Aek Nabara Barumun Kabupaten Padanglawas. *J. Peternak.* 1:1–5. Available from: jurnal.um-tapsel.ac.id/index.php/peternakan/article/view/198
- Ojango, J. M. K., J. Audho, E. Oyieng, M. Radeny, P. Kimeli, J. Recha, and A. W. T. Muigai. 2018. Assessing actors in rural markets of sheep and goats in the Nyando Basin of Western Kenya: a key to improving productivity from smallholder farms. *Trop. Anim. Health Prod.* 50:1871–1879. doi:10.1007/s11250-018-1638-z.
- Oliveira, J. A. de, A. A. do Egito, B. do A. Crispim, F. M. de V. Junior, L. de O. Seno, and A. Barufatti. 2020. Importance of naturalized breeds as a base for the formation of exotic sheep (*Ovis aries*) breeds in tropical altitude regions. *Genet. Mol. Biol.* 43:e20190054. doi:10.1590/1678-4685-GMB-2019-0054.
- Oner, Y., J. H. Calvo, and C. Elmaci. 2011. Y chromosomal characterization of Turkish native sheep breeds. *Livest. Sci.* 136:277–280. doi:10.1016/j.livsci.2010.08.015. Available from:

<http://dx.doi.org/10.1016/j.livsci.2010.08.015>

- Othman, O. E., H. A. M. Abd El-Kader, S. S. Alam, and S. H. Abd El-Aziem. 2017. Cytochrome b conservation between six camel breeds reared in Egypt. *J. Genet. Eng. Biotechnol.* 15:1–6. doi:10.1016/j.jgeb.2017.04.006. Available from: <http://dx.doi.org/10.1016/j.jgeb.2017.04.006>
- Othman, O. E., E. A. Balabel, and M. F. Abdel-samad. 2014. Mitochondrial DNA Diversity in Five Egyptian Sheep Breeds. *Glob. Vet.* 12:369–375. doi:10.5829/idosi.gv.2014.12.03.82330.
- Othman, O. E. M., N. Payet-Duprat, S. Harkat, A. Laoun, A. Maftah, M. Lafri, and A. Da Silva. 2016. Sheep diversity of five Egyptian breeds: Genetic proximity revealed between desert breeds: Local sheep breeds diversity in Egypt. *Small Rum. Res.* 144:346–352. doi:10.1016/j.smallrumres.2016.10.020. Available from: <http://dx.doi.org/10.1016/j.smallrumres.2016.10.020>
- Paiva, S. R., C. Dias, D. A. Faria, C. McManus, A. A. Oliveira, R. N. B. Lobo, W. H. de Souza, J. A. Dergam, M. S. M. Albuquerque, A. A. do Egito, S. R. Castro, and A. S. Mariante. 2006. Y-chromosome variability of in Brazilian sheep breed. In: 8th World Congress on Genetics Applied to Livestock Production. Belo Horizonte, Brazil. p. 1–2. Available from: <https://www.alice.cnptia.embrapa.br/alice/bitstream/doc/188054/1/ID275601e.pdf>
- Pakpahan, S. 2017. Diversitas Genetik dan Karakteristik Molekuler Kambing Lokal Indonesia Berdasarkan Analisis Profil DNA Mitokondria dan Short Tandem Repeat (STR). Universitas Gadjah Mada.
- Pala, A. 2004. Genetic conservation on livestock and factor analysis. *Applied Ecol. Environ. Res.* 2:135–141. doi:10.15666/aeer/02135141.
- Parmaksiz, A., A. Oymak, E. Yuncu, S. Demirci, E. K. Bastanlar, E. O. Unal, I. Togan, and F. Ozer. 2018. Y-Chromosome Polymorphisms in 12 Native , Karagül , Karacabey Merino Breeds from Turkey and Anatolian Mouflon (*Ovis gmelinii anatolica*). *Kafkas Univ. Vet. Fak. Derg.* 24:821–828. doi:10.9775/kvfd.2018.19962.
- Pedrosa, S., J. Arranz, N. Brito, N. Renseigné, F. San, and Y. Bayón. 2007. Mitochondrial diversity and the origin of Iberian sheep. *Genet. Sel. Evol.* 39:91–103. doi:<http://dx.doi.org/10.1051/gse:2006034>.
- Pfeiffer, I., J. Burger, and B. Brenig. 2004. Diagnostic polymorphisms in the mitochondrial cytochrome b gene allow discrimination between cattle, sheep, goat, roe buck and deer by PCR-RFLP. *BMC Genet.* 5:1–5. doi:10.1186/1471-2156-5-30. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC524170/pdf/1471-2156-5->

30.pdf

Pourlis, A. F. 2011. A review of morphological characteristics relating to the production and reproduction of fat-tailed sheep breeds. *Trop. Anim. Health Prod.* 43:1267–1287. doi:10.1007/s11250-011-9853-x.

Prayitno, T. Hartati, R. Pratiwi, and W. T. Artama. 2005. RFLP Marker Variation of Cytocrome b Gene and Genetic Relationship among Batur , Merino and Local Sheep Breeds. *Anim. Prod.* 13:156–165.

Prayitno, T. Hartatik, R. Pratiwi, and W. T. Artama. 2008. Genetic Relatedness Between Batur , Merino and Local Sheep Based on Random Amplyfied Polymorphism DNA Marker. *Anim. Prod.* 13:30–38.

Purvis, A., and A. Hector. 2000. Getting the Measure of Biodiversity. *Nature.* 405:212–219. doi:10.1038/35012221.

Qiao, G., H. Zhang, S. Zhu, C. Yuan, H. Zhao, M. Han, Y. Yue, and B. Yang. 2020. The complete mitochondrial genome sequence and phylogenetic analysis of Alpine Merino sheep (*Ovis aries*). *Mitochondrial DNA Part B.* 5:990–991. doi:10.1080/23802359.2020.1720536. Available from: <https://doi.org/10.1080/23802359.2020.1720536>

Rafia, P., and A. Tarang. 2016. Sequence Variations of Mitochondrial DNA Displacement - Loop in Iranian Indigenous Sheep Breeds. *Iran. J. Appl. Anim. Sci.* 6:363–368.

Ramesh, D., H. R. Meena, and K. L. Meena. 2012. Analysis of small ruminant market system in different agro-climatic zones of southern India. *Vet. World.* 5:288–293. doi:10.5455/vetworld.2012.288-293.

Rees, J. L. 2003. Genetics of hair and skin color. *Annu. Rev. Genet.* 37:67–90. doi:10.1146/annurev.genet.37.110801.143233.

Regional Office of Man Power and Transmigration Department of Special Region of Yogyakarta. 2019. Upah Minimum Kabupaten / Kota (UMK) Tahun 2014 - 2019. Yogyakarta. Available from: <https://nakertrans.jogjaprovo.go.id/resources/datakk/70/17>. UPAH MINIMUM KABUPATEN KOTA (UMK) TH.2014-2019.pdf

Rezaei, H. R., S. Naderi, I. C. Chintauan-Marquier, P. Taberlet, A. T. Virk, H. R. Naghash, D. Rioux, M. Kaboli, and F. Pompanon. 2010. Evolution and taxonomy of the wild species of the genus *Ovis* (Mammalia, Artiodactyla, Bovidae). *Mol. Phylogenet. Evol.* 54:315–326. doi:10.1016/j.ympev.2009.10.037. Available from: <http://dx.doi.org/10.1016/j.ympev.2009.10.037>

Ricklefs, M. C. 1981. A History of Modern Indonesia c. 1300 to the present. The

Macmillan Press Ltd., London.

- Rohlf, F. J. 2009. NTSYSpc - Numerical Taxonomy and Multivariate Analysis System. Appied Biostatistics Inc., New York.
- Rozas, J., A. Ferrer-Mata, J. C. Sanchez-DelBarrio, S. Guirao-Rico, P. Librado, S. E. Ramos-Onsins, and A. Sanchez-Gracia. 2017. DnaSP v6: DNA Sequence Polymorphism Analysis of Large Datasets. *Mol. Biol. Evol.* 34:3299–3302.
- Ruane, J. 1999. A critical review of the value of genetic distance studies in conservation of animal genetic resources. *J. Anim. Breed. Genet.* 116:317–323. doi:10.1046/j.1439-0388.1999.00205.x.
- Ruzty, R. H., D. Heriyadi, and A. Sarwestri. 2014. Qualitative traits identification of Wonosobo ewes (case on farmers in Kecamatan Kejajar Kabupaten Wonosobo). *Students e-Journals.* 3:1–8. Available from: jurnal.unpad.ac.id/ejournal/article/view/3709/0
- Ryder, M. L. 1964. The history of sheep breeds in Britain. *Agric. Hist. Rev.* 12:1–12. Available from: <http://www.jstor.org/stable/10.2307/40273081>
- Sahusilawane, A. M., K. Sukesi, K. Hidayat, and Y. Yuliati. 2011. Traditional Agriculture System and the Role of Woman is a Business Opportunity in Maintaining Food Security: A Case Study of the Oirata Tribe in Kisar Island, Northwestern Maluku, Maluku Province, Indonesia. *J. Account. Manag.* 1:7–9.
- Salamena, J., R. Noor, C. Sumantri, dan I. Inounu, J. Peternakan Fakultas Pertanian Universitas Pattimura, F. Peternakan Institut Pertanian Bogor, and P. Penelitian dan Pengembangan Peternakan. 2007. Genetic relationships, effective population size and rate of inbreeding per generation of sheep population in Kisar Island. *J.Indon.Trop.Anim.Agric.* 32:71–75. Available from: [http://jppt.undip.ac.id/pdf/32\(2\)2007p71-75.pdf](http://jppt.undip.ac.id/pdf/32(2)2007p71-75.pdf)
- Satt, H. 2017. Eid Mawlid al-Nabi, Eid al-Fitr and Eid al-Adha; optimism and impact on analysts' recommendations: Evidence From MENA region. *Arab Econ. Bus. J.* 12:57–67. doi:10.1016/j.aebj.2017.04.001. Available from: <http://dx.doi.org/10.1016/j.aebj.2017.04.001>
- Savar Sofla, S., H. R. Seyedabadi, A. Javanrouh Aliabad, and R. Seyed Sharifi. 2017. Genetic diversity and molecular phylogeny of Iranian sheep based on cytochrome B gene sequences. *Iran. J. Appl. Anim. Sci.* 7:283–287.
- Selvam, R., N. Murali, A. Kannan Thiruvankadan, R. Saravanakumar, G. Ponnudurai, and T. P. Jawahar. 2017. Single-nucleotide polymorphism-based genetic diversity analysis of the Kilakarsal and Vembur sheep breeds. *Vet. World.* 10:549–555. doi:10.14202/vetworld.2017.549-555.

- Sheikhlou, M., and M. A. Abbasi. 2016. Genetic diversity of Iranian Lori-Bakhtiari sheep assessed by pedigree analysis. *Small Rum. Res.* 141:99–105. doi:10.1016/j.smallrumres.2016.07.009. Available from: <http://dx.doi.org/10.1016/j.smallrumres.2016.07.009>
- Siregar, J. 2014. Identifikasi spesies ruminansia dengan metode PCR-RFLP pada gen sitokrom b mitokondria. Institut Pertanian Bogor.
- Sodiq, A. 2010. Identifikasi Sistem Produksi dan Keragaan Produktivitas Domba Ekor Gemuk di Kabupaten Brebes Propinsi Jawa-Tengah. *Agripet.* 10:25–31.
- Sodiq, A., and E. S. Tawfik. 2004. Productivity and Breeding Strategies of Sheep in Indonesia: A Review. *J. Agric. Rural Dev. Trop. Subtrop.* 105:71–82. Available from: <https://jarts.info/index.php/jarts/article/view/52/46>
- Standar Nasional Indonesia. 2015. Bibit domba - Bagian 1: Garut. Badan Standarisasi Nas.
- Sulaiman, Y., H. A. Kaleri, X. Huang, J. Aniwashi, C. Zhao, and Y. Xiong. 2013. Phylogeny of 19 indigenous sheep breeds in Xinjiang inferred from cytochrome b. *J. Anim. Plant Sci.* 23:1268–1275. Available from: <https://pdfs.semanticscholar.org/5a4e/d28ee6ef4c462bae7fcb74d28357a8c501c4.pdf>
- Sumadi, Muflikhun, and I. G. S. Budisatria. 2014. Estimation of genetic correlation between birth and weaning weight of Fat Tailed sheep at UPT-HMT Garahan, Jember, East Java. *Bul. Peternak.* 38:65–70.
- Sumantri, C., A. Einstiana, S. J. F, and I. Inounu. 2007. Keragaan dan hubungan phylogenetik antar domba lokal di Indonesia melalui pendekatan analisis morfologi. *Jitv.* 12:42–54. Available from: <http://medpub.litbang.deptan.go.id/index.php/jitv>
- Sumantri, C., a Farajallah, U. Fauzi, and J. F. Salamena. 2008. Keragaman Genetik DNA Mikrosatelit dan Hubungannya dengan Performa Bobot Badan pada Domba Lokal. *Media Peternak.* 31:1–13.
- Suparyanto, A., T. Purwadaria, and Subandriyo. 1999. Pendugaan jarak genetik dan faktor peubah pembeda bangsa dan kelompok domba di Indonesia melalui pendekatan analisis morfologi. *J. Ilmu Ternak dan Vet.* 4:80–87.
- Sutama, I. 1992. Domba Ekor Gemuk di Indonesia : Potensi dan permasalahannya. In: *Prosiding Sarasehan Usaha Ternak Domba dan Kambing Menyongsong Era PJPT II.* Ikatan Sarjana Ilmu-Ilmu Peternakan Cabang Bogor dan Himpunan Peternak Domba dan Kambing Indonesia Cabang Bogor. p. 78–84.
- Tahsin, K. N. 2018. Current Status of Animal Welfare Technologies in Bangladesh.

Int. Res. J. Pharm. Med. Sci. 1:7–9.

- Talib, C., I. Inounu, and A. Bamualim. 2007. Restrukturisasi Peternakan di Indonesia. *Anal. Kebijak. Pertan.* 5:1–14.
- Talib, C., R. H. Matondang, and T. Herawati. 2011. Breeding Model for Goats and Sheep in Indonesia. In: *Workshop Nasional Diversifikasi Pangan Daging Ruminansia Kecil 2011.* p. 55–63.
- Tamura, K., G. Stecher, D. Peterson, A. Filipksi, and S. Kumar. 2013. MEGA6: Molecular Evolutionary Genetics Analysis Version 6.0. *Mol. Biol. Evol.* 30:2725–2729. doi:10.1093/molbev/mst197. Available from: <https://academic.oup.com/mbe/article-lookup/doi/10.1093/molbev/mst197>
- Tariq, M. 2016. Sacrificial Animals and Celebration of Eid al-Adha. *Farmer Reform.* 1:5–9.
- Tawaf, R., D. Heriyadi, A. Anang, M. Sulaeman, and R. Hidayat. 2011. Empowerment of small holder farmers business ‘Garut sheep’ in West Java. In: *International Conference on Sustainable Agricultural and Food Security: Challenges and Opportunities.* p. 1–8.
- Tena, Y. T., A. H. Asgedom, and Y. T. Gebre. 2015. Sheep and goat marketing and consumption in relation to religious festivities in shifting and permanent farming systems in Western Ethiopia. *Glob. J. Anim. Sci. Res.* 3:142–147. Available from: www.gjasr.com
- Tesfay, H. H., A. K. Banerjee, and Y. Y. Mummmed. 2017. Morphological characterization of indigenous sheep population in their production system for developing suitable selection criteria in central zone of Tigray, Northern Ethiopia. *Int. J. Livest. Prod.* 8:40–47. doi:10.5897/ijlp2016.0350.
- Thompson, J. D., D. G. Higgins, and T. J. Gibson. 1994. CLUSTAL W: Improving the sensitivity of progressive multiple sequence alignment through sequence weighting, position-specific gap penalties and weight matrix choice. *Nucleic Acids Res.* 22:4673–4680. doi:10.1093/nar/22.22.4673.
- Tindano, K., N. Moula, P. Leroy, A. Traoré, and N. Antoine-Moussiaux. 2017. Market organization and animal genetic resource management: a revealed preference analysis of sheep pricing. *Animal.* 11:1873–1880. doi:10.1017/s1751731117000477.
- Tindano, K., N. Moula, A. Traoré, P. Leroy, and N. Antoine-Moussiaux. 2015. Characteristics and typology of sheep herding systems in the suburban area of Ouagadougou (Burkina Faso). *Arch. Anim. Breed.* 58:415–423. doi:10.5194/aab-58-415-2015. Available from: www.arch-anim-breed.net/58/415/2015/

- Torlak, O., M. Ozmen, M. A. Tiltay, and M. S. Islek. 2018. Ritual as assemblage : feast of sacrifice experiences of Turkish consumers. *J. Islam. Mark.* doi:10.1108/JIMA-05-2018-0091.
- Tsunoda, K., C. Hong, S. Wei, M. A. Hasnath, M. M. Nyunt, H. B. Rajbhandary, T. Dorji, H. Tumennasan, and K. Sato. 2006. Phylogenetic relationships among indigenous sheep populations in East Asia based on five informative blood protein and nonprotein polymorphisms. *Biochem. Genet.* 44:287–306. doi:10.1007/s10528-006-9026-1.
- Udo, H. M. J., and I. G. S. Budisatria. 2011. Fat-tailed sheep in Indonesia; an essential resource for smallholders. *Trop. Anim. Health Prod.* 43:1411–1418. doi:10.1007/s11250-011-9872-7.
- Vickers, A. 2005. *A History of Modern Indonesia*. Cambridge University Press, London.
- Wagari, G., T. Getachew, and E. Bayou. 2020. Multivariate analysis of phenotypic traits of indigenous sheep revealed new population in western part of Ethiopia. *Int. J. Agric. Sci. Food Technol.* 6:050–057. doi:10.17352/2455-815X.000055.
- Wandia, I. N. 2001. Genome Mitokondria. *J. Vet.* 2:131–137.
- Wang, C., H. Xu, D. Li, J. Wu, A. Wen, M. Xie, Q. Wang, G. Zhu, Q. Ni, M. Zhang, and Y. Yao. 2020. Phylogenetic and characterization of the complete mitochondrial genome relationship of Argali sheep (*Ovis ammon*). *Mitochondrial DNA Part B Resour.* 5:273–274. doi:10.1080/23802359.2019.1698369. Available from: <https://doi.org/10.1080/23802359.2019.1698369>
- Wang, X., H. Chen, and C. Z. Lei. 2007a. Genetic diversity and phylogenetic analysis of the mtDNA D-loop region in Tibetan sheep. *Asian-Australasian J. Anim. Sci.* 20:313–315. doi:10.5713/ajas.2007.313.
- Wang, X., Y. H. Ma, H. Chen, and W. J. Guan. 2007b. Genetic and phylogenetic studies of Chinese native sheep breeds (*Ovis aries*) based on mtDNA D-loop sequences. *Small Rum. Res.* 72:232–236. doi:10.1016/j.smallrumres.2006.10.016.
- Wang, X., G. Zhou, Q. Li, D. Zhao, and Y. Chen. 2014. Discovery of SNPs in RXFP2 related to horn types in sheep. *Small Rum. Res.* 116:133–136. doi:10.1016/j.smallrumres.2013.10.022. Available from: <http://dx.doi.org/10.1016/j.smallrumres.2013.10.022>
- Wang, Y., L. Xu, W. Yan, S. Li, J. Wang, X. Liu, J. Hu, and Y. Luo. 2015. Y chromosomal haplotype characteristics of domestic sheep (*Ovis aries*) in

- China. *Gene*. 565:242–245. doi:10.1016/j.gene.2015.04.015. Available from: <http://dx.doi.org/10.1016/j.gene.2015.04.015>
- Widi, T. S. M. 2015. Mapping the Impact of Crossbreeding in Smallholder Cattle Systems in Indonesia. Wageningen University.
- Winaya, A. 2009. Populasi Sapi Lokal Indonesia Berdasarkan Penciri Molekuler Dna Mikrosatelit Kromosom Y Dan Gen Cytochrome B. Institut Pertanian Bogor.
- Xin, W., M. Yue-Hui, and C. Hong. 2006. Analysis of the Genetic Diversity and the Phylogenetic Evolution of Chinese Sheep Based on Cyt b Gene Sequences. *Acta Genet. Sin.* 33:1081–1086. doi:10.1016/S0379-4172(06)60145-5.
- Yağci, S., S. Baş, and S. Kiraz. 2020. Study of mitochondrial DNA (mtDNA) D - loop region polymorphism in Şavak Akkaraman sheep. *Turkish J. Vet. Anim. Sci.* 44:323–330. doi:10.3906/vet-1905-57.
- Yang, J., W.-R. Li, F.-H. Lv, S.-G. He, S.-L. Tian, W.-F. Peng, Y.-W. Sun, Y.-X. Zhao, X.-L. Tu, M. Zhang, X.-L. Xie, Y.-T. Wang, J.-Q. Li, Y.-G. Liu, Z.-Q. Shen, F. Wang, G.-J. Liu, H.-F. Lu, J. Kantanen, J.-L. Han, M.-H. Li, and M.-J. Liu. 2016. Whole-Genome Sequencing of Native Sheep Provides Insights into Rapid Adaptations to Extreme Environments. *Mol. Biol. Evol.* 33:2576–2592. doi:10.1093/molbev/msw129. Available from: <https://academic.oup.com/mbe/article-lookup/doi/10.1093/molbev/msw129>
- Yilmaz, O., F. Cengiz, M. Ertugrul, and R. T. Wilson. 2013. The domestic livestock resources of Turkey: sheep breeds and cross-breeds and their conservation status. *Anim. Genet. Resour. génétiques Anim. génétiques Anim.* 52:147–163. doi:10.1017/s2078633613000015. Available from: <https://core.ac.uk/download/pdf/234661995.pdf>
- Yudianto, S. A. 2000. Keanekaragaman Alam Hayati. Upi.edu. 1–54. Available from: http://file.upi.edu/Direktori/FPMIPA/JUR._PEND._BIOLOGI/195305221980021-SUROSU_ADI_YUDIANTO/Modul/MODUL1_KEANEKARAGAMAN_HAYATI.pdf
- Yüncü, E., S. Demirci, E. Koban Baştanlar, Ş. A. Doğan, U. Taşdemir, and N. Togan. 2013. Comparative study of three simple molecular approaches in search of mtDNA haplogroup identification of domestic sheep. *Small Rum. Res.* 114:64–71. doi:10.1016/j.smallrumres.2013.05.014.
- Yuriadi. 2012. Profil Morfologi dan Fisiologi, serta Analisis Genetik Kuda (*Equus caballus*) Lokal Indonesia Berdasarkan Sekuen Gen Cytochrome B dan D-

Loop Mitokondria. Universitas Gadjah Mada.

Yusuf, Z. K. 2010. Polimerase Chain Reaction (PCR). Saintek. 5:1–6.

Zhao, Y., E. Zhao, N. Zhang, and C. Duan. 2011. Mitochondrial DNA diversity, origin, and phylogenetic relationships of three Chinese large-fat-tailed sheep breeds. *Trop. Anim. Health Prod.* 43:1405–1410. doi:10.1007/s11250-011-9869-2.

Zygoiannis, D. 2006. Sheep production in the world and in Greece. *Small Rum. Res.* 62:143–147. doi:10.1016/j.smallrumres.2005.07.043.